



**TARIFF ORDER**  
**TRUE-UP FOR FY 2021-22**  
**APR REVIEW FOR FY 2022-23**  
**DETERMINATION OF AGGREGATE REVENUE REQUIREMENT &**  
**Multi Year TARIFF ORDER FOR 3<sup>rd</sup> CONTROL PERIOD**  
**FY 2023-24 to FY 2027-28**  
**AND**  
**RETAIL TARIFF ORDER FOR FY 2023-24**  
**OF**  
**MANIPUR STATE POWER DISTRIBUTION COMPANY LIMITED**

Petition (ARR & Tariff) No.03 of 2022

**JOINT ELECTRICITY REGULATORY COMMISSION**  
**FOR MANIPUR AND MIZORAM**

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**ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
A&G	Administrative and General
AAD	Advance Against Depreciation
ARR	Aggregate Revenue Requirement
CAG	Controller and Auditor General of India
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CWIP	Capital Work in Progress
DG	Diesel Generation
DPS	Delayed Payment Surcharge
EA, 2003	Electricity Act, 2003
EDM	Electricity Department, Manipur
EHT	Extra High Tension
FCT	Full Cost Tariff
FSA	Fuel Surcharge Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
GOI	Government of India
HT	High Tension
IEGC	Indian Electricity Grid Code
ISGS	Inter State Generating Station
IR	Inter-Regional
JERC	Joint Electricity Regulatory Commission for Manipur and Mizoram
kV	Kilovolt
kVA	Kilovolt-ampere
kW	kilowatt
kWh	kilowatt-hour
LT	Low Tension
MAT	Minimum Alternate Tax
MDI	Maximum Demand Indicators
MSPCL	Manipur State Power Company Limited
MSPDCL	Manipur State Power Distribution Company Limited
MUs	Million Units
MYT	Multi Year Tariff
NLDC	National Load Despatch Centre
NTI	Non-Tariff Income
O&M	Operation and Maintenance
PGCIL	Power Grid Corporation of India Ltd
PLF	Plant Load Factor
PLR	Prime Lending Rate
POSOCO	Power System Operation Corporation Ltd.
PPA	Power Purchase Agreement
PWW	Public Water Works
RE	Revised Estimate
REC	Renewable Energy Certificate
R&M	Repair and Maintenance
RoE	Return on Equity
RPO	Renewable purchase Obligation



Abbreviation	Description
RTS	Roof Top solar
RGGVY	Rajiv Gandhi Gramin Vidyutikaran Yojana
SBAR	State Bank Advance Rate
SLDC	State Load Despatch Centre
T&D	Transmission and Distribution
UI	Unscheduled Interchange

# **JOINT ELECTRICITY REGULATORY COMMISSION FOR MANIPUR AND MIZORAM**

**TBL Bhawan, 2<sup>nd</sup> to 5<sup>th</sup> Floor, E-18, Peter street, Khatla,  
Aizawl, Mizoram – 796001**

## **Petition (ARR & Tariff) No. 3 of 2022**

In the matter of

Trueing up for FY 2021-22, Annual Performance Review for FY 2022-23 and determination of Aggregate Revenue Requirement (ARR) for the Multi Year Tariff (MYT) Third Control Period from FY 2023-24 to FY 2027-28 and Retail Tariff for FY 2023-24 for sale of electricity by the Manipur State Power Distribution Company Limited (MSPDCL) in the State of Manipur

**AND**

Manipur State Power Distribution Company Limited ----- Petitioner

**Present**

**Mr. Lalchharliana Pachuau  
Chairperson**

**Mr. R.Thanga  
Member**

## **ORDER**

1. The Manipur State Power Distribution Company Limited (hereinafter referred to as MSPDCL) is a deemed licensee in terms of section-14 of the Electricity Act 2003 (hereinafter referred to as Act), engaged in the business of distribution of electricity in the state of Manipur.

2. JERC (M&M) (MYT) Regulations, 2014 specify that the distribution licensee shall file ARR and Tariff Petition in all aspects along with requisite fee as specified in Commission's fees, fines and charges regulations, on or before 30<sup>th</sup> November of the preceding year. MSPDCL has filed MYT Tariff petition for determination of ARR for FY 2023-24 to FY 2027-28 and retail tariffs for FY 2023-24 along with Annual Performance Review for FY2022-23 and True-up petition for FY 2021-22 on **Dt.15<sup>th</sup> December 2022** vide its letter No.2/97/2022/MSPDCL-MYT/5799-5802, IMPHAL Dated: 15.12.2022

3. **ARR & Tariff Petition for FY 2023-24**

As per the directive of the Commission, the MSPDCL has filed the Petition for True-up for FY 2021-22 and APR for FY 2022-23 and determination of Aggregate Revenue Requirement (ARR) for the Multi Year Tariff period of FY2023-24 to FY2027-28 and Retail Supply Tariff for FY 2023-24. In the petition MSPDCL has estimated net ARR of Rs.1005.66 Crores for FY 2023-24 and Revenue from existing tariff is at Rs. 557.26 Crore, the revenue from Outside State sale is at Rs.63.89 Crs and assuming a tariff related subsidy support of Rs.300.93 Crores expected from the Govt. of Manipur for FY 2023-24 and accordingly indicated an unmet revenue gap of **Rs.83.59 Crore**, which the MSPDCL now proposes to recover it through revision of tariff to an extent of 15.00% hike over prevailing rates. While, the Commission approves a revenue gap of 166.87Crs after due consideration of various things to arrive at the Net ARR to be 788.02Crs and there felt no necessary to revised the present Tariff since the requisite gap amount Rs.166.87Crs is well with in Government Tariff subsidy of Rs.300.93Crs.

4. **Admission of the petition**

The Commission observed that the ARR petition filed by the Petitioner was incomplete and lacking critical and vital information required as specified in JERC for M&M Multi Year Tariff Regulations, 2014. Therefore, MSPDCL was asked to resubmit the ARR petition with due corrections and needed information vide Commission letters **No.H.20013/39/22-JERC, dated 12.01.2023**. Upon receipt of additional information, the tariff Petition **was admitted on 13.02.2023** and marked as **petition (ARR and Tariff) No. 3 of 2022** and taken up the processing of ARR submissions made vide their letter No.2/97/2022/MSPDCL-

MYT/6538-41, Dt 31.01.2023. The Additional information sought from MSPDCL vide Commission's letter No.H.20013/39/22-JERC, dated 12.01.2023.

The MSPDCL has submitted additional information/clarifications etc called for. vide its letters No.2/97/2022/MSPDCL-MYT/6688-90, dt 10.02.2023.

**5. True up petition for FY 2021-22**

As per Regulation 10(2) of JERC (M&M) (MYT) Regulations, 2014 the licensee shall file an application for True up of the previous year (FY 2021-22) along with Audited Annual Accounts. MSPDCL has submitted true up petition along with 3<sup>rd</sup> control period MYT ARR petition for the five-year period from FY 2023-24 to FY 2027-28 along with the Statutory Auditors approved audited annual accounts for FY 2021-22. The MSPDCL has furnished the net ARR of Rs.779.69 Crore for FY 2021-22 and shown an unmet deficit/Gap of Rs.47.74 Crores after a category wise revenue receipt of Rs.459.76Crs and also the government tariff subsidy amount of Rs.272.19 Crore. Details of revenue realised from the Outside State sales amounting to Rs.49.68Crs were furnished for scrutiny of FY2021-22 in their ARR true-up filings. The true-up for FY 2021-22 has been taken up with the data readily available from approved audited Balance Sheet and relevant other background details called for. Hence, the final True-up proposal is examined and admitted at Rs.58.32Crs of surplus for FY2021-22 as detailed in the relevant chapter.

**6. Annual Performance Review for FY 2022-23**

The JERC M&M (MYT) Regulations 2014 had issued an amendment Dt 27<sup>th</sup> March 2019 which mandates the licensee (i.e., MSPDCL) to submit the annual performance review to the Commission for the current year ARR with reference to revised estimates. Accordingly, review for FY 2022-23 was carried out by MSPDCL which resulted in revised net **APR** (Annual Performance Review) of Rs.848.79 Crs with an estimated revenue gap (Deficit) of Rs.42.90Crs after considering category wise revenue realisable amount of Rs.515.51Crs but failed to account for Rs.61.18Crs of revenue from sale of surplus power in arrival of revenue gap. The requirement of overall Govt subsidy was stated as Rs.290.38 Crs.

**7. Aggregate Revenue Requirement & Retail Tariff for FY 2023-24**

The MSPDCL have submitted MYT petition for five years period from FY 2023-24 to FY

2027-28 for determination of ARR and to determine revised Tariff for FY 2023-24 with gross ARR amount of Rs.1005.66Cr and with net revenue gap of Rs.384.52Cr after adjusting for projected revenue realisation from all sources of Rs.621.14Cr before adjusting the Government tariff subsidy amount of Rs.300.93Cr and after such adjustment the proposed unmet gap was Rs.83.59Cr to be recovered through 15% overall tariff revision. The Commission after detailed examination, analysis and scrutiny arrived at the net revenue gap of **Rs.166.87Cr** only considering the revenue realisation as per prevailing tariff rates of FY2022-23 and Outside State sales income and adopted zero revision in Retail supply Tariff to existing categories and also after considering of the Manipur Government subsidy as stated in their letter No.9/14/2021-Power, Dt.16.03.2022 placed at **Annexure-VII** at the end for reference.

#### 8. Public Hearing Process

Regulation-17 of the MYT Regulations, 2014 provides giving adequate opportunity to all stake holders and general public for making suggestions/objections on the Tariff Petition as mandated under section-64 of the Electricity Act 2003. Accordingly, the Commission directed MSPDCL vide letter No.H.20013/39/22-JERC, dated 13.02.2023 to publish the ARR and Tariff Petition for the FY 2023-24 in an abridged form as public notice in newspapers having wide circulation in the state inviting suggestions /objections on the Tariff Petition.

Accordingly, MSPDCL has published the summary of Tariff Petition in an abridged form as public notice in the following newspapers and the Tariff petition was also placed on the website of MSPDCL. The **last date of submission** to file their suggestions/objections by general public was fixed on **02<sup>th</sup> March 2023**.

Sl. No.	Name of Newspaper	Language	Date of publication
1.	Sangai Express	English	15 <sup>th</sup> 16 <sup>th</sup> & 17 <sup>th</sup> February, 2023
2.	Poknapham	Manipuri	15 <sup>th</sup> & 16 <sup>th</sup> February, 2023

The Commission have received one objection/suggestion from All Manipur Power Consumers' Association (AMPCA) on the ARR petition filed by the MSPDCL for FY2023-24. The Commission passed on the objection received to MSPDCL for communicating their

response in reply form upon the objections raised vide Commission letter No H 20013/39/22-JERC dated 23<sup>rd</sup> February 2023.

The Commission, in order to ensure transparency in the process of Tariff determination and for providing proper opportunity to all stake holders and general public making/expressing their suggestions/objections on the Tariff petition and for the convenience of the consumers and general public across the state, decided to hold a public hearing at the headquarters of the Manipur state at Imphal.

#### 9. **Notice for Public Hearing**

Accordingly, the Commission published a notice in the following leading newspapers giving due intimation to the general public, interested parties, objectors and the consumers about the public hearing to be held at **Imphal on 15.03.2023**.

Sl. No	Name of the News paper	Language	Date of Publication
1	Poknapham	Manipuri	6 <sup>th</sup> & 7 <sup>th</sup> March 2023.
2	The Imphal Free Press	English	7 <sup>th</sup> & 8 <sup>th</sup> March 2023.


#### 10. **Public Hearing**

The Public hearing was held as scheduled on 15.03.2023 at Hotel Classic North AOC, Regency Hall, Imphal from 11:00 AM to 1:00 PM. During the public hearing, each objector was provided a time slot for presenting before the Commission his/her views on the petition of the MSPDCL. The main issues raised by the objectors during the public hearing and corresponding response of the MSPDCL are briefly narrated in **Chapter-4**.

11. The proposal of MSPDCL was also placed before the **State Advisory Committee** in its meeting held on 14.03.2023 at Hotel Classic North AOC, Regency Hall, Imphal from 11.00 AM and various aspects of the Petition were discussed by the Committee.
12. The Commission taken into consideration the facts presented by the MSPDCL in its Petition and subsequent filings, the suggestions/objections received from stakeholders, consumer organizations, general public and recommendations of State Advisory Committee and response of the MSPDCL to those suggestions/objections for approval of the ARR and tariff petition for FY 2023-24.
13. The Commission has reviewed the directives issued earlier in the Tariff orders for FY 2010-11 to FY 2022-23 and noted that some of the directives were complied with and some are partially attended with. The Commission has dropped the directives those were fully

complied and the remaining directives are consolidated again and fresh directives are issued for further necessary action by MSPDCL.

14. In exercise of the powers vested under section-62 read with section-64 of the Electricity Act 2003 and Regulation-16 JERC for M&M (Multi Year Tariff) Regulations, 2014 (hereinafter referred to as Tariff Regulations) and other enabling provisions in this behalf the Commission issues this order approving of the ARR and Tariffs for retail supply of electricity in the state of Manipur.
15. This order is in Eleven (11) chapters as detailed below:
  - Chapter 1: Introduction.
  - Chapter 2: Summary of ARR and Tariff Petition for FY 2023-24.
  - Chapter 3: Power Sector in Manipur - An Overview.
  - Chapter 4: Public Hearing process.
  - Chapter 5: Final True up for FY 2021-22.
  - Chapter 6: Annual Performance Review for FY 2022-23.
  - Chapter 7: Analysis of 3<sup>rd</sup> Control period MYT and ARR proposals for FY 2023-24 and Commission's decisions.
  - Chapter 8: Tariff Principles and Design.
  - Chapter 9: Wheeling Charges for FY 2023-24.
  - Chapter 10: Directives.
  - Chapter 11: Fuel and Power Purchase Cost Adjustment.
16. The MSPDCL should ensure implementation of the Order from the effective date after issuance of a public notice, in such a font size which is clearly & Conspicuously visible in two local daily newspapers having wide circulation in the State within a week and submit compliance of the same to the Commission by the MSPDCL before effective date itself.
17. This Order shall be effective from **1st April, 2023** and shall remain in force until the issue of next Tariff Order by the Commission.



**R. THANGA**  
**MEMBER**



**LALCHHARLIANA PACHUAU**  
**CHAIRPERSON**

Place: Aizawl

Date: **28/03/2023**





## 1. Introduction

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### 1.1. JERC for Manipur and Mizoram (JERC, M&M)

In exercise of the powers conferred by the Electricity Act 2003, (hereinafter referred to as Act) the Government of India constituted Electricity Regulatory Commission for the States of Manipur and Mizoram to be known as “Joint Electricity Regulatory Commission for Manipur and Mizoram” vide GOI. Gazette (Extra Ordinary) Notification No. 23/3/2002 R&R dated 18/01/2005, (hereinafter referred to as Commission) as per the authorization given by the Government of Manipur and the Government of Mizoram vide Memorandum of Agreement dated 23/07/2004. The Commission constituted is a two-member body designated to function as an autonomous authority responsible for regulation of the power sector in States of Manipur and Mizoram. The powers and functions of the Commission are as prescribed in the Act. The head office of the Commission is presently located at Aizawl, the capital town of Mizoram. The Commission became functional w.e.f January 24th, 2008.

- a). In accordance with the Act, the Commission discharges the following functions:
- i. Determine the tariff for generation, transmission, distribution and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under Section 42 of the Act, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
  - ii. Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
  - iii. Facilitate intra-State transmission and wheeling of electricity
  - iv. Issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

- v. Promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
  - vi. Adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;
  - vii. Levy fee for the purposes of this Act;
  - viii. Specify State Grid Code consistent with the Central Grid Code specified under Clause (h) of sub-section (1) of Section 79 of the Act;
  - ix. Specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
  - x. Fix the trading margin in the intra-State trading of electricity, if considered, necessary;
  - xi. Discharge such other functions as may be assigned to it under the Act.
- b). Further, the Commission also advises the State Government on all or any of the following matters namely:
- i). Promotion of competition, efficiency and economy in activities of the electricity industry;
  - ii). Promotion of investment in electricity industry;
  - iii). Reorganization and restructuring of electricity industry in the State;
  - iv). Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by the State Government.
- c). The State Commission ensures transparency while exercising its powers and in discharging its functions.
- d). In discharge of its functions, the State Commission is guided by the national Tariff Policy (NTP) was brought out by GOI in compliance to Section 3 of the Act. The objectives of the NTP are to:
- Ensure availability of electricity to consumers at reasonable and competitive rates;

- Ensure financial viability of the power sector and attract investments;
- Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;
- Promote competition, efficiency in operations and improvement in quality of supply.

### **1.2. Manipur State Power Distribution Company Ltd (MSPDCL)**

In pursuance Electricity Act 2003, herein after referred to as Act, the erstwhile State Electricity Department was unbundled into 2 (two) state owned functionally independent successor entities is (i) Manipur State Power Company Ltd (herein after referred has MSPCL) a deemed transmission licensee and (ii) Manipur State Power Distribution Company Ltd (herein after referred has MSPDCL) a deemed distribution Licensee w.e.f 1<sup>st</sup> of Feb 2014, by a Gazette notification of the Government of Manipur vide Manipur State Electricity Reforms Transfer Scheme 2013 dated 31<sup>st</sup> December 2013. MSPDCL is a 100% subsidiary of MSPCL and undertakes power distribution within the state of Manipur. **MSPDCL holds the entire network in the state for all voltage levels of 11kV and below.** All the existing generation assets of about 45MW which are primarily function as back up generation facilities are transferred to MSPDCL. These generation assets are included as other business for MSPDCL. MSPDCL also carries out the trading activity.

The objectives of the MSPDCL are:

- Focuses on demand and distribution network growth.
- Lays emphasis on metering to help reduce distribution losses (100% metering)
- Focuses on metering to raise correct demand.
- Focuses on collection of revenue to reduce commercial losses and improve cash flow.
- Concentrated efforts into computerization of billing for efficient billing and in turn better and faster recovery.
- Focuses on power theft and correct metering and energy audit to improve efficiency.

## 2. Summary of ARR and Tariff Petition for FY 2023-24

### 2.1. Aggregate Revenue Requirement (ARR)

The MSPDCL in its petition filing has submitted the Petitions relating to True up of FY 2021-22, Annual Performance Review for FY 2022-23 and the determination of ARR for 3<sup>rd</sup> MYT control period FY2023-24 to 2027-28 and Tariff filing for FY 2023-24.

**Table 2.1: Projected ARR for Control period of FY2023-24 to FY 2027-28**

(Rs. Cr)						
Sl. No	Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	Power Purchase Cost	568.93	615.74	667.26	725.82	782.42
2	Inter-State Transmission Charges	109.41	114.88	120.62	126.66	132.99
3	Intra-State Transmission Charges	107.39	116.93	128.18	138.79	151.56
4	SLDC & NRLDC Charges	1.58	1.58	1.58	1.58	1.58
5	Employee Cost	98.50	104.13	110.09	116.38	123.04
6	R&M Expenses	12.45	13.17	13.92	14.72	15.56
7	Administration & General Expenses	10.21	10.80	11.41	12.07	12.76
8	Depreciation	16.47	17.11	17.93	18.75	19.37
9	Interest and Finance Charges	12.72	10.90	9.00	7.00	4.93
10	Interest on Working Capital	11.41	12.11	12.92	13.84	14.77
11	<b>Total Cost</b>	<b>949.08</b>	<b>1017.34</b>	<b>1092.91</b>	<b>1175.61</b>	<b>1259.08</b>
12	Return on Equity	1.56	1.56	1.56	1.56	1.56
13	Add: Income Tax	0	0	0	0	0
14	Add; True-up gap for past 6 years	61.47	61.47	61.47	0	0
15	Less: Non-Tariff Income	6.45	6.84	7.25	7.68	8.14
16	<b>Net ARR</b>	<b>1005.66</b>	<b>1073.53</b>	<b>1148.69</b>	<b>1169.48</b>	<b>1252.50</b>
17	Retail Sales revenue at Tariff rates of FY2022-23	557.26	602.76	652.68	707.38	767.12
18	Revenue from surplus energy sale	63.89	63.41	62.83	63.38	63.20
19	<b>Overall Revenue from all sources</b>	<b>621.15</b>	<b>666.17</b>	<b>715.51</b>	<b>770.76</b>	<b>830.32</b>
20	<b>Revenue Deficit/(Surplus)</b>	<b>384.52</b>	<b>407.36</b>	<b>433.18</b>	<b>398.72</b>	<b>422.18</b>

**Prayer**

**MSPDCL requests the Hon'ble Commission to:**

- a. Admit the Petition for Final True-up for FY 2021-22, MYT of Third control period FY 2023-24 to FY 2027-28, as submitted herewith;
- b. Approve the amounts claimed in the true up of FY 2021-22;
- c. Approve the amounts claimed in the ARR for FY 2023-24;
- d. Approve the category-wise tariffs proposed by MSPDCL for FY 2023-24;
- e. Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/change/modify/alter this filing and make further submissions as may be required at a future date;
- f. Permit submission of any additional information required by the Commission during the processing of this Petition;
- g. Pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

**####**

### 3. Power Sector in Manipur- An Overview

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#### 3.1. Geographical Reality

Manipur, like other States of the North-Eastern Region, has been gifted with a fairly high hydro power potential. However, the major portion still remains untapped due to financial and environmental bottlenecks. Currently, the State is having one furnace oil based generating station at **Leimakhong (6x6 MW) in standby mode, and a few diesel generating stations**. Therefore, the State is mostly dependent upon outside sources for meeting majority of its energy requirement. It is currently getting power from Bongaigaon TPS NTPC, NHPC, NEEPCO, ONGC Tripura Power Corporation (OTPC) Unit I and Unit II, and Baramura Gas Turbine Power Project (BGTPP). Based on the scheduled firm share allocation from the above stated Central Sector generating stations to MSPDCL for current financial year from NEEPCO, NHPC, OTPC-I and II, BGTPP of Tripura State Electricity Corporation Limited (TSECL) and NTPC Bongaigaon is currently around **391.14MW**. However, currently MSPDCL's share is around 214 MW from installed and operating central generating stations' power projects.

For the purpose of evacuating power from different sources in the North-Eastern Region, the inter-state transmission network owned and maintained by PGCIL as well as the intra-state transmission network owned by the Manipur State Power Corporation Limited (MSPCL) is being utilised. The existing intra-state transformation capacity of 132 kV Substations in Manipur is 822.15 MVA and the length of the 33 kV lines is 1753.201 CKT kms of single circuit lines and 87.9 km of double circuit lines. Currently, MSPDCL has 192 Feeders of 11 kV and above (rural and urban) and 7904 numbers of DTs (rural and urban). Also, MSPDCL's MVA capacity of LT network and 8205 numbers of (rural and Urban) HT network are 599.06 MVA and 164.85 MVA, respectively.

### 3.2. Power Supply

#### a) Own Generation

The MSPDCL has own generation plants of Micro hydel, diesel with installed capacity of 45.11 MW. But there is no own generation contribution shown from these stations from FY 2018-19 onwards to FY 2022-23.

#### b) Power Purchase from Generating Station sources Outside the State

The MSPDCL is mostly dependent on Central Generating Stations (CGS) located in different parts of the North Eastern Region for meeting its energy requirement. The total firm share from own generation and the Central Sector Generating Stations like NTPC, NEEPCO, NHPC, OTPC, Tripura and others are 254.38 MW as shown in the Table below. The actual peak and off-peak availabilities are however always less because of low plant load factors.

**Table 3.1: Energy Allocation in Megawatts from all Outside State sources**

Sl. No	MSPDCL Generation sources	Ins./Cap (MW)	Share (MW)
<b>A</b>	<b>NEEPCO(Hydro)</b>		
1	Kopili I HEP	200	15.03
2	Kopili II HEP	25	1.77
3	Khandong HEP	50	3.35
4	Ranganadi HEP	405	34.4
5	Doyang HEP	75	5.99
	<b>Sub total</b>	<b>755</b>	<b>60.54</b>
<b>B</b>	<b>NEEPCO (Gas Based)</b>		
1	Assam Gas based Power Project	291	23.96
2	Agartala Gas Turbine Power Project	130	10.85
	<b>Sub total</b>	<b>421</b>	<b>34.81</b>
<b>C</b>	<b>NHPC (Loktak HEP)</b>		
1	Purchased	105	44.34
	<b>Sub total</b>	<b>105</b>	<b>44.34</b>
<b>D</b>	<b>NTPC – New Plants</b>		
1	Bongaigoan Unit-1,2,&3	750	25.825
	<b>Sub total</b>	<b>750</b>	<b>25.825</b>
<b>E</b>	<b>TRIPURA</b>		
1	Baramura (Gas Based) (IV & V)	42	-
	<b>Sub total</b>	<b>42</b>	<b>-</b>
<b>F</b>	<b>OTPC</b>		
1	Pallatana- (Unit I & II)	726	52.00
	<b>Sub Total</b>	<b>726</b>	<b>52.00</b>
<b>G</b>	<b>Others</b>		

Sl. No	MSPDCL Generation sources	Ins./Cap (MW)	Share (MW)
1	Pare HEP	110	9.30
2	Lower Subansiri Stage I	500	22.00
	<b>Grand Total</b>	<b>3409.00</b>	<b>248.82</b>

MSPDCL has been allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, OTPC-Palatana, and NTPC Bongaigaon and other sources for power purchase under long term PPAs. The actual power purchase quantum and energy availability as compared to quantum approved for in the Tariff Order for FY 2021-22 are as detailed in the Table below:

**Table 3.2: Energy Purchase for FY 2021-22 (MU)**

( All in MU )			
Sl. No.	Source of Power	(APR Approved Dt.23.03.22)	2021-22 Actuals
<b>A</b>	<b>CGS - NEEPCO</b>	<b>300.22</b>	<b>338.10</b>
1	Kopili -I HEP	0	0.00
2	Kopili-II HEP	3.00	0.78
3	Khandong HEP	15.00	17.51
4	Ranganadi HEP	100.22	95.97
5	Doyang HEP	10.00	7.48
6	Assam GBPP	100.00	141.61
7	AGTPP	72.00	74.75
<b>B</b>	<b>CGS – NHPC</b>	<b>218.00</b>	<b>165.59</b>
1	Loktak HEP Purchased Power	160.00	118.89
2	Loktak HEP- Free Power	58.00	46.70
<b>C</b>	<b>NTPC - New Plants</b>	<b>160.00</b>	<b>313.13</b>
1	NTPC Bongaigaon Unit I to III	160.00	313.13
<b>D</b>	<b>Others</b>	<b>311.00</b>	<b>334.09</b>
1	Baramura GBPP Unit IV and V	36.00	57.67
2	OTPC Palatana	230.00	240.75
3	Para HEP	45.00	35.67
4	Renewable – Solar	0.000	-
5	Renewable – Non-Solar	0.00	-
	<b>Total CGS &amp; other purchases</b>	<b>989.22</b>	<b>1150.91</b>
	<b>IEX &amp; Banking transaction</b>	<b>23.83</b>	<b>-80.86</b>
6	IEX Purchases	80.00	63.37
7	Banked mode Purchase	115.83	86.37
8	Banking mode Sales	-82.00	-125.82
9	IEX Sales	-90.00	-117.65
	UI Over Drawal		12.87
	<b>Overall Net Purchases (MU)</b>	<b>1013.05</b>	<b>1070.05</b>

As can be seen from the above Table, the actual power purchase quantum from CGS in FY 2021-22 was 1150.91 MU, which is higher than the tariff Order approved quantum



of 989.22 MU for FY2021-22. The requirement in the state is higher in winter months when hydro availability is lower and MSPDCL has to purchase from outside to meet the state demand. To manage this, purchase through banking mechanism has been planned. Actually, MSPDCL banked available power in summer months to use it in winter months when availability is low. Also, actual deviation is managed by MSPDCL by way of purchase/sell of power from IEX as per requirement or by availing the banking facility with other traders (for detailed monthly trend of IEX and banking sale / purchase please refer Format F1a). It can be seen that the net power purchase from all sources for FY 2020-21 is 1070.05MU before NER losses.

Manipur, being a hilly state with its population unevenly dispersed and spread over remote corners. The details of Distribution network, owned & operated by MSPDCL as on 31.03.2021, are given in Table below.

**Table 3.3: Distribution Network as on 31.3.2021**

Sl. No.	Voltage	Units	2019-20	2020-21
1	33kV Lines	Ckt KMs		1753.201
2	11kV lines	Ckt KMs	7482	7885
3	LT lines	CKT KMS	18678	19406
4	33kV Substations	No.s		93
5	Power Transformers	No.s		191
6	- Do -	MVA		822.15
7	Distribution transformers	MVA	7904	8205
8	Metered Consumers (LT)	Nos	499859	501756
9	Metered Consumers (HT)	Nos	1401	1716

#### **Commission Analysis:**

The above distribution network data pertains to this year filings (FY 2020-21) which they have provided in the **format-P4 (Details of Physical Statistics of the network) of last year filing**. But there is no such data for this MYT filing petition by the Licensee.

### **3.3. Distribution Loss**

The actual Distribution Losses of 24.58% achieved by MSPDCL in FY 2021-22 is slightly lower than 28.10% approved by Hon'ble Commission in its APR order dated 23.03.2022. The technical and commercial losses are not provided with segregation.

The quantum of distribution losses is primarily due to the higher LT line lengths and the hilly / complex terrain of Manipur State. The long LT distribution lines and distribution at 11 kV are leading to higher distribution losses in the state. In the recent past, due to various initiatives in rural electrification, significant progress was made by MSPDCL in addition to the rural consumers. However, it is pertinent to note that the new consumer addition happened in most remote areas by extending the distribution network of MSPDCL. Due to smaller load and low consumption level, technical line losses would be quite high in those areas. MSPDCL is trying its best to serve them continuously and maintain these systems with its workforce efficiently. With the present state of complex terrain, long LT distribution lines, scatter LT domestic consumers, the actual LT distribution losses in Manipur are higher than the Commission approved distribution losses as given in its ARR order. Further, MSPDCL is in the process of expanding the coverage of prepaid meters to reduce unauthorized usage of electricity and the T&D losses. As the coverage of prepaid meters increased in the state in the future years, the T&D losses gradually improved.

### 3.4. Consumer Profile

The category wise consumers and corresponding energy sales during the year 2021-22 are given in Table below:

**Table 3.4: Number of consumers and connected load of MSPDCL for FY 2021-22**

Sl. No	Consumer Category	Pertains to FY 2021-22		
		Energy sale (MU)	No. of Consumers	Connected Load (KW)
1	Kutir Jyoti	4.36	15907	7367
2	Domestic (General)	523.6	458690	711899
3	Commercial-LT	65.94	26793	89258
4	Public lighting-LT	4.12	471	1208
5	Public waterworks LT	1.37	42	480
6	Agriculture & Irrigation LT	1.23	48	370
7	Cottage and Small industry-LT	20.77	2385	19267
	<b>L.T Supply - Total</b>	<b>621.39</b>	<b>504336</b>	<b>829849</b>
8	Commercial-HT	21.31	1088	21836
9	PWS HT	25.59	202	17055
10	Agriculture HT	4.36	21	739
11	Medium Industry-HT	4.18	99	4538

Sl. No	Consumer Category	Pertains to FY 2021-22		
		Energy sale (MU)	No. of Consumers	Connected Load (KW)
12	Large industry-HT	8.69	44	12070
13	Bulk supply-HT	96.25	412	51525
	<b>H.T Supply - Total</b>	<b>156.81</b>	<b>1866</b>	<b>107763</b>
14	<b>Grand Total LT &amp; HT</b>	<b>778.19</b>	<b>506202</b>	<b>937612</b>

### 3.5. Demand

The energy demand of the MSPDCL is met by supply of power from central generating stations of North Eastern Region and Baramura Gas Based Plants in Tripura State. The actual annual energy requirement during FY 2021-22 is 998.55 MU.

### 3.6. Energy Audit

The MSPDCL is not conducting Energy Audit effectively either at the incoming stage or at the consumer end. At present, the MSPDCL is arriving at the losses by taking the input at 11kV point and compare it with energy sales at consumer end and showing the difference as distribution loss. Proper energy audit should be carried out to find out the actual distribution loss. Feeder wise energy audit is not done.

### 3.7. Energy Metering

MSPDCL is trying its best to serve them continuously and maintain these systems with its workforce efficiently. With the present state of complex terrain, long LT distribution lines, scatter LT domestic consumers, the actual LT distribution losses in Manipur are higher than the Commission approved distribution losses as given in its ARR order. Further, MSPDCL is in the process of expanding the coverage of prepaid meters to reduce unauthorized usage of electricity and the T&D losses. As the coverage of prepaid meters increased in the state in the future years, the T&D losses gradually improved. The Physical verification drive shall be conducted in near future district /circle wise.

## 4. Public Hearing Process

### 4.1. Introduction

On admitting the ARR and Tariff Petition for FY 2023-24, the Commission directed the MSPDCL to make available the copies of petition to the general public, post the petition on their website and also publish the same in newspapers in an abridged form and invite comments/objections/suggestions from them.

One written objection is received, received from All Manipur Power Consumers Association, Imphal.

### 4.2. Public Hearing

In order to ensure transparency in the process of determination of tariff as envisaged in the Electricity Act, 2003, Public Hearing was held at Hotel Classic North AOC, Regency Hall, Imphal on 15.03.2023 from 11:00 A.M. to 1:00 P.M. During the Public Hearing the participants from general public were given an opportunity to offer their views in respect of the ARR and Tariff Petition for FY 2023-24 of MSPDCL. The list of stakeholders who attended the Public Hearing is given in Annexure-II. The Officers of MSPDCL who attended the Public Hearing responded on the issues raised by the objectors.

### 4.3. Proceedings of Public Hearing

**Objector:** Mr.Konthoujam Sanatomba, General Secretary, All Manipur Power Consumers' Association (AMPCA).

#### Objections:

- 1) Nothing mentioned about the EV (Electric Vehicle) & Tariff, provision of Charging Stations in the proposed tariff rates of Manipur, with the incentives, etc. as the Government of India is encouraging the use of EV throughout the country with incentives.
- 2) Advised the Power Companies of Manipur to segregate the Revenue Collection of Pre-Paid Meters from the Total Revenue Collection of Manipur. By doing so, they may have achieved different targets and achievements in the Revenue collection on the year-to-year basis.
  - i. At the present scenario, Pre-Paid Meter Consumers feeding **the Bok** (Non-Pre-Paid Meter Consumers equivalent to a Demon in Mahabharata), even buildings hosting Highest Offices available in the State of Manipur.
- 3) As on 31<sup>st</sup> Dec, 2022 the installed capacity of Renewable Energy in India are as follows,

Solar power - 63.303 GW

Wind Power - 41.930 GW

Nuclear Power - 06.780 GW

- i. Manipur is lagging behind in Renewable Energy. Why Manipur should not have the Renewable Energy (in MW) through the Ministry of Energy, Government of India?
- 4) Outsourcing of services upto 33 KV, including new Installations, Operation and maintenance to the Agencies like PGCIL or any other Central Agencies will be economical as we Consumers find **the expenditure towards MSPCL appeared to be in the Higher side**.
  - i. As on 31<sup>st</sup> March, 2022, the Employees Strength of MSPDCL was 1297 which is in the higher side as per norm of Ministry of Energy (MoE), Government of India for handling about 1230 MU/annum. Advise MSPDCL to reduce as per norm of MoE to avoid hiking of Power Tariff of Manipur.
- 5) While accepting Pool Losses and Transmission & Distribution Losses in the present Petition we find different figures. Please advise accordingly, MSPDCL, not to repeat such error in future.
- 6) Energy from Kopili is blanked, the reasons are not elaborated by MSPDCL, it affects tariff calculation as it being lowest energy rates in the region.
- 7) The Energy Purchase for FY 2021-22 is different as that of Energy balance for FY 2021-22 (with the Losses), for the same period, reasons may be elaborated.
- 8) Completion cost per MW of Loktak Power Station may be lower than that of Khandong / Kopili Power Station, as the Loktak Power Station Commissioned much earlier than that of Khandong / the Kopili. Why unit Rates of Loktak Power is costlier as compared to Khandong / Kopili Power?
- 9) Gross Fixed Assets (GFA) making us a confusion by mixing with non-Performing Assets (NPA). Please advise MSPDCL to separate NPA from GFA while making Tariff Rates.

In light of the above, it is necessary to ratify the whole proposed Tariff Rates prepared by MSPDCL for FY 2022-23 and we will get much lower rates compare to the present proposed one for FY 2023-24 or otherwise retain the existing tariff rates till the ratification.

#### **Reply from MSPDCL, objection wise:**

**Reply (1)-EV Tariff:** At this point of time, there penetration of EVs and EV charging stations in Manipur is very limited and is not expected to grow significantly in the ensuing year. As such, there is no new category proposed for EV charging stations at this point of time. However, if the Commission directs us to submit separate category of EV charging

stations, then MSPDCL can propose the same in the next tariff petition based on relevant MoP guidelines for the same.

**Reply (2)-Segregated Revenue:** Collection from Pre-Paid Consumers: MSPDCL has its own web portal (billing.mspdcl.info) where consumers can recharge online and offline from the vending stations. Also, post-paid consumers can make payments through this web portal. From this system segregated data for revenue collection for pre-paid and post-paid consumers can be acquired.

**Reply (3)-Renewable Energy:** At present, the renewable procurement is limited to the purchase of hydro power which is exceeding the target of Hydro Purchase Obligation (HPO). The deficit in purchase of other renewable sources like solar is proposed to be partially met from the surplus in HPO. MSPDCL has also proposed to buy REC to meet the shortfall in RPO during the MYT control period. In the meantime, MSPDCL is also exploring various options for development of renewable power or purchase of renewable power from outside the state through different means.

**Reply (4)-Outsourcing of services upto 33 kV:** This point related to MSPDCL. However, we would like to submit that the transmission charges of MSPCL are on the higher side and are increasing during the MYT control period. The Commission is requested to carefully consider the impact of high transmission charges in the overall cost of supply and the consequent pass through of such cost in consumer tariff while approving the ARR of MSPCL.

**Reply (5)-Pool Losses and T&D Losses:** MSPDCL has submitted the revised petition after removing certain discrepancies pointed out by the Commission. In the revised petition, there are no discrepancies in the figures.

**Reply (6)-Power Purchase from Kopili:** The power purchase from Kopili project is zero for FY 2020-21 and FY 2022-23 based on the actual power purchase data. During the MYT period, MSPDCL has projected power purchase from the stations based on the average availability in the last five years.

**Reply (7)-Energy Balance for FY 21-22:** The power purchase from long term sources / long term PPAs is 1150.91 MUs and the total power purchase from long term and short term combined for FY 21-22 is 1227.15 Mus. The same figures are provided in power purchase table as well as energy balance table. As such, there is no discrepancy in this account.

**Reply (8)-Power Purchase of Loktak Downstream:** This point does not relate to MSPDCL. MSPDCL is purchasing power based on the allocations in Central Generating Stations as provided by MoP, GoI and existing PPAs and the rates are determined by Central Energy Regulatory Commission (CERC). MSPDCL has claimed the cost based on actual audited cost for the past 5 years.

**Reply (9)-GFA figures:** There is no issue of Non-Performing Assets in MSPDCL and the assets reflected in balance sheet are all assets which are put to use and commissioned. MSPDCL is not clear on which assets are referred here.

In light of the above replies, MSPDCL would like to submit that the proposal submitted for tariff is reasonable and made after careful consideration of actual audited data, future business plan and performance improvement trajectory. The Commission is requested to consider the same for approval accordingly.

## 5. Final True up for FY 2021-22

### 5.1. Background

MSPDCL is a Distribution Licensee, which fulfils the need for electricity of the consumers in the State of Manipur. As explained earlier, MSPDCL is hereby submitting a final true-up of FY 2021-22 based on the actual sales, power purchase quantum and costs, capitalisation, O&M expenses, and other expenditure for FY 2021-22 along with Audited Annual Accounts Statements. Therefore, true-up for FY 2021-22 is not carried out based on the ARR for FY 2021-22 as approved in the Tariff order for FY 2021-22 Dt.26.04.2021 is referred as 'Approved' in the subsequent section.

### 5.2. Energy Sales

#### Petitioners Submission

MSPDCL caters to a diverse consumer mix comprising of:

- Kutir Jyoti and LT Domestic
- LT & HT Commercial,
- LT & HT Industry
- Public Street Lighting
- Public Water Works
- Agriculture consumers.

LT Domestic category is the largest consumer category and comprises around 60% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, DDUGJY and Saubhagya scheme. The actual category-wise energy sales as compared to the energy sales approved by the Hon'ble Commission (in ARR order dated 26.04.2021) for FY 2021-22 is given in the Table below:

**Table 5.1: Category-wise Energy Sales (MU) for FY 2021-22**

S No	Category	Approved in ARR Order	Approved in APR Order	Actual
<b>A</b>	<b>LT Supply</b>			
1	Kutir Jyoti	4.10	4.13	4.37
2	Domestic	441.28	462.22	523.62
3	Commercial LT	59.00	63.57	65.95
4	Public Lighting	3.86	3.66	4.12
5	PWW	1.29	1.28	1.38
6	Irrigation and Agriculture	1.15	1.15	1.23



7	Cottage & Small Industries	19.47	22.28	20.77
	<b>Total LT</b>	<b>530.15</b>	<b>558.29</b>	<b>621.44</b>
<b>B</b>	<b>HT Supply</b>			
1	Commercial HT	19.98	21.54	21.31
2	PWW	23.99	23.49	25.59
3	Irrigation and Agriculture	0.75	0.75	0.80
4	Medium Industries	3.92	4.49	4.18
5	Large Industries	8.15	10.15	8.69
6	Bulk Supply	90.19	90.14	96.25
	<b>Total HT</b>	<b>146.98</b>	<b>150.56</b>	<b>156.82</b>
	<b>Grand Total (LT &amp; HT)</b>	<b>677.13</b>	<b>708.85</b>	<b>778.26</b>

The actual energy sales by MSPDCL in FY 2021-22 is 778.26 MU. The actual sales are higher than the ARR approved figures on account of rise in domestic category consumption due to rise in number of consumers because of various household electrifications schemes which started gaining pace from FY 19. The actual sales are in line with the provisionally approved APR figures.

The Hon'ble Commission is requested to approve the consumption parameters as submitted in the above table as same is uncontrollable on the part of MSPDCL.

#### Commission Analysis:

Commission has approved the category wise actual sales at 677.13 MU in Tariff Order for FY 2021-22 and subsequently revised it in APR order for 706.71MU subject to verification of their reflection in the audited annual accounts upon their submission along with true-up petition in due course. The details of sales approved is tabulated below:

**Table 5.2: Category wise retail sales approved by the Commission for FY 2021-22**

Sl. No.	Particulars	Apprvd T.O 2021-22	(APR Order)	Actual (2021-22)
<b>A</b>	<b>LT Supply</b>	<b>MU</b>	<b>MU</b>	<b>MU</b>
1	Kutir Jyoti	4.10	4.13	4.37
2	Domestic	441.28	458.09	523.62
3	Commercial LT	59.00	63.57	65.95
4	Public Lighting	3.86	3.66	4.12
5	PWW	1.29	1.28	1.38
6	Irrigation and Agriculture	1.15	1.15	1.23
7	Cottage and Small Industries	19.47	22.28	20.77
	<b>Total LT</b>	<b>530.15</b>	<b>554.16</b>	<b>621.44</b>
<b>B.</b>	<b>HT Supply</b>			
8	Commercial HT	19.98	21.54	21.31

Sl. No.	Particulars	Apprvd T.O 2021-22	(APR Order)	Actual (2021-22)
9	PWW	23.99	23.49	25.59
10	Irrigation and Agriculture	0.75	0.75	0.80
11	Medium Industries	3.92	4.49	4.18
12	Large Industries	8.15	10.15	8.69
13	Bulk Supply	90.19	92.14	96.25
	<b>Total HT</b>	<b>146.98</b>	<b>152.56</b>	<b>156.82</b>
	<b>Grand Total (LT &amp; HT)</b>	<b>677.13</b>	<b>706.72</b>	<b>778.26</b>
14	Outside State Sales	50.13	90.00	117.65
15	Overall Revenue from sources	<b>727.26</b>	<b>796.72</b>	<b>895.91</b>

### 5.3. Energy Balance and Transmission & Distribution loss

#### Petitioner's Submission:

The computation of actual Transmission & Distribution losses for FY 2021-22 is shown in the Table below:

**Table 5.3: Actual Transmission and Distribution Losses for FY 2021-22**

S No.	Particulars	Unit	Actual
1	Own Generation	MU	0.00
2	Power purchase from CGS	MU	1150.61
3	Add: UI Over drawl	MU	12.87
4	Add: IEX purchases	MU	63.37
5	Add: Returned Banking Energy	MU	86.37
6	Less: IEX sales	MU	117.65
7	Less: Banking mode sales	MU	125.82
<b>8</b>	<b>Gross Energy handled at NER</b>	<b>MU</b>	<b>1069.75</b>
9	Pool Losses	%	2.36%
10	Energy Losses at NER	MU	25.25
<b>11</b>	<b>Net Energy available at NER after losses</b>	<b>MU</b>	<b>1044.50</b>
12	Less: UI Under drawl	MU	12.59
<b>13</b>	<b>Gross Energy handled at State Periphery</b>	<b>MU</b>	<b>1031.91</b>
14	Total Sales (LT+HT)	MU	778.26
15	Transmission and Distribution loss	MU	253.65
<b>16</b>	<b>Transmission and Distribution loss</b>	<b>%</b>	<b>24.58%</b>

The actual T&D Losses of 24.58% achieved by MSPDCL in FY 2021-22 against the approved figure of 27.57% approved by Hon'ble Commission in its ARR order dated 26.04.2021.

**Table 5.4: Transmission and Distribution Losses for FY 2021-22**

Particulars	Approved in ARR order	Approved in APR	Actual order
Distribution	27.57%	28.10%	24.58%

It is submitted that energy availability for FY 2021-22 has been computed based on the actual Power purchase. Further, the transmission licensee, MSPCL operates the 33 kV network which is the input point of the distribution network. It may be noted that MSPDCL network periphery included only 11KV system and below whereas 33 KV and above transmission network falls under the MSPCL network. Therefore, segregating the MSPDCL distribution losses and MSPCL network losses, in absence of proper metering arrangements is not possible. Further, the Hon'ble Commission has stated that w.e.f. 01.02.2014, MSPDCL shall be responsible for distribution losses. In absence of an accurate figure of losses for 33 kV and above network, the Commission had calculated the losses without subtracting the intra state transmission losses (@ 8.895% in the ARR order) which led to distribution losses of 18.68% and overall T&D losses of 27.57%. Because of huge differences in the figures of intra state transmission losses of claimed and approved as well as year wise difference, we have shown the combined T&D losses here.

The quantum of distribution losses is primarily due to the higher LT line lengths and the hilly / complex terrain of Manipur State. The long LT distribution lines and distribution at 11 kV are leading to higher distribution losses in the state. In the recent past, due to various initiatives in rural electrification, significant progress was made by MSPDCL in addition to the rural consumers. However, it is pertinent to note that the new consumer addition happened in most remote areas by extending the distribution network of MSPDCL. Due to smaller load and low consumption level, technical line losses would be quite high in those areas. MSPDCL is trying its best to serve them continuously and maintain these systems with its workforce efficiently. With the present state of complex terrain, long LT distribution lines, scatter LT domestic consumers, the actual LT distribution losses in Manipur are higher than the Commission approved distribution losses as given in its ARR order. Further, MSPDCL is in the process of expanding the coverage of prepaid meters to reduce unauthorized usage of electricity and the T&D losses. As the coverage of prepaid meters increased in the state in the future years, the T&D losses gradually improved.

Hence, MSPDCL requests the Hon'ble Commission to approve the actual distribution

loss, as shown in the Table above.

**Table 5.5: Energy balance (MU) for FY 2021-22**

S No.	Particulars	Unit	Approved In Order	Approved in APR Order	Actuals
<b>A</b>	<b>Energy Requirement</b>				
1	Energy Sales	MU	677.13	708.85	778.26
2	Transmission and Distribution loss	%	27.57%	28.10%	24.58%
3	Transmission and Distribution loss	MU	257.75	277.03	253.65
4	Energy Requirement	MU	934.88	985.88	1031.91
<b>B</b>	<b>Energy Availability</b>				
5	Own Generation (Net)	MU	0	0	0
6	Power Purchase	MU	1011.00	989.22	1150.61
7	Less: External Losses	%	2.57%	2.54%	2.36%
8	Less: External Energy Losses	MU	25.98	25.13	25.25
9	Energy available at state periphery(6-8)	MU	985.02	964.09	1125.36
10	Add: UI Purchases	MU	-50.13	-172.00	76.24
11	Net energy available at state periphery	MU	934.89	792.09	1201.60
12	Intra-State Transmission Loss	%		8.25%	
13	Intra-State Transmission Loss	MU		65.35	
14	Energy Available for Distribution	MU	934.89	726.75	1201.60
15	Surplus / (Deficit)	MU	0.00	-259.14	169.69
<b>16</b>	<b>Surplus grossed up by Intra-state Transmission Loss for sale outside the state</b>	<b>MU</b>	<b>0.00</b>	<b>-282.44</b>	<b>169.73</b>

The significant difference in actual energy surplus and approved energy surplus in FY 2021-22 is due to the difference in level of transmission and distribution loss and higher availability. Hence, MSPDCL requests the Hon'ble Commission to approve the energy balance, as shown in the Table above.

### Commission's Analysis

While, the losses percentage for North Eastern Region (NER) was adopted by MSPDCL at 2.842% in FY 2020-21 but adopted higher losses for the same in subsequent years filing figures without any logical explanation for such higher values. It is noted from the MIZORAM filing that the NER losses were considered at 2.36% only, The Intra-state transmission losses adopted for FY 2021-22 were at 8.706% as MSPCL adopted these losses in its True-up filing for FY2021-22 now. Besides there is no reasoning offered by MSPDCL for such higher loss percentage adoption. The actual distribution losses now claimed was 24.58% by MSPDCL as against their last year filing figure of 21.50% is an indication of their poor performance in 2021-22 itself and tariff Order approved

losses were set at 21.19%. This kind of underperformance is frowned by the Commission as they achieved higher losses over their own filed figures. The Energy Balance during FY 2021-22 is re-worked as detailed in the table below.

**Table 5.6: Distribution loss & Energy Balance approved by Commission for FY2021-22**

S No	Particulars	Unit	Tariff Order 26/4/2021	APR Apprvd	True-Up (MSPDCL)	Actuals (Apprvd)
<b>A</b>	<b>Distribution Energy Requirement</b>					
1	Energy for Retail Sales	MU	677.13	706.71	778.26	778.26
2	Distribution loss	%	20.50%	21.64%	17.41%	16.95%
3	Distribution loss	MU	174.60	195.15	164.04	158.80
4	Energy need at Distribution Input	MU	851.73	901.86	942.30	937.06
<b>B</b>	<b>Energy Availability</b>					
5	Power Purchase	MU	1011.00	1185.05	1150.91	1150.91
6	Add: IEX Purchases	MU	0	0	63.37	63.37
7	Add: UI Over drawl	MU	0	0	12.87	12.87
8	Add: Banking units Returns	MU	0	0	86.37	86.37
9	Less: Banking mode of Sales (Gross)	MU			-125.82	
10	Less: IEX Sales (Gross) made in FY21-22	MU			-117.65	
11	Gross Energy handled at NER Level	MU	1011.00	1185.05	1069.75	1313.52
12	Less: External (pooled) Losses	%	2.57%	2.54%	2.36%	2.36%
13	Less: External Energy pooled Losses	MU	25.98	30.10	25.25	31.00
14	Energy after External Losses (6-8)	MU	985.02	1154.95	1044.50	1282.52
15	Less: Banking mode of Sales (Net)	MU	0	-82.00	0.00	-125.82
16	Less: IEX Sales (Net) made in FY21-22	MU	-50.13	-90.00	0.00	-117.65
17	Less: UI Under drawl	MU	0	0	-12.59	-12.59
18	Add: Own Generation (Net)	MU	0			
19	Available Energy at State periphery	MU	934.89	982.95	1031.91	1026.46
20	Intra-State Transmission Loss	%	8.90%	8.25%	8.71%	8.71%
21	Intra-State Transmission Loss	MU	83.16	81.09	89.88	89.40
22	Energy Available at Distribution input	MU	851.73	901.86	942.03	937.06
	Overall Losses (T & D) - MU	MU	257.76	276.24	253.65	248.20
	Overall Losses (T & D) - %	%	27.57%	28.10%	24.58%	24.18%

As per MSPDCL filed T&D Losses of 24.58% indicated, the Commission arrived at transmission Losses to be 8.71% and Distribution Losses to be 17.41% so as to match with the overall losses of 24.58% shown in petition considering the Energy input from various sources of 1227.15MU.

The Distribution Losses achieved by MSPDCL during FY 2021-22 duly considering of all the transaction made such as UI deviations, Banking Transactions and the

IEX transactions is at 16.95% and clubbing the independent Transmission losses of 8.71%, the overall actual T&D Losses would work out to 24.18% as a whole for the same energy input of 1227.15MU.

The MSPDCL shall also conduct system studies and energy audit after proper assessment of metering systems in operation. Further, segregation of technical and commercial loss assessment mechanism has to be completed without giving any plausible excuses as is being done in the past.

#### 5.4. Energy Purchase

The actual Power Purchase cost as against the power purchase cost approved in the ARR /Tariff Order for FY 2021-22 is shown in the Table below:

**Table 5.7: Energy Purchase for FY 2021-22 (MU)**

Sl. No	Sources of Power	Approved in ARR Order	Approved in APR Order	Actual
<b>A</b>	<b>CGS - NEEPCO</b>			
1	Kopili - I HE	69.82		
2	Kopili - II HE	6.90	3.00	0.78
3	Khandong HE	12.50	15.00	17.51
4	Ranganandi HE Project	105.25	100.22	95.97
5	Doyang HE Project	11.35	10.00	7.48
6	Assam GBPP	100.97	100.00	141.61
7	Agartala GTPP	48.28	72.00	74.75
	<b>Sub-total</b>	<b>355.07</b>	<b>300.22</b>	<b>338.10</b>
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	188.00	160.00	118.89
2	Loktak Free power	55.90	58.00	46.70
	<b>Sub-total</b>	<b>243.90</b>	<b>218.00</b>	<b>165.59</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V	55.40	36.00	57.67
2	OTPC Pallatana Unit I			
3	OTPC Pallatana Unit II	232.60	230.00	240.75
	<b>Sub-total</b>	<b>288.00</b>	<b>266.60</b>	<b>298.42</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon Unit I			
2	NTPC Bongaigaon Unit II	96.80	160.00	313.13
3	NTPC Bongaigaon Unit III			
5	Pare HEP	25.45	45.00	35.67
6	Renewable – Solar	1.50	0.00	0.00
7	Renewable – Non-Solar	1.00	0.00	0.00
	<b>Sub-total</b>	<b>124.03</b>	<b>205.00</b>	<b>348.80</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	0.00	80.00	63.37
2	IEX Sales	0.00	-90.00	

Sl. No	Sources of Power	Approved in ARR Order	Approved in APR Order	Actual
	<b>Sub-total</b>	<b>0.00</b>	<b>-10.00</b>	<b>63.37</b>
<b>F</b>	<b>UI Overdrawl</b>	0.00	0.00	12.87
<b>G</b>	<b>Banking energy returned</b>	0.00	115.83	0.00
<b>H</b>	<b>Banking sale to outsiders</b>	0.00	-82.00	0.00
	<b>TOTAL</b>	1011.00	982.95	1227.15

As can be seen from the above Table, the actual power purchase quantum from CGS in FY 2021-22 was 1227.15 MU, which is higher than the approved quantum of 1011 MU.

The Hon'ble Commission is requested to approve the power purchase based on the actuals as shown in the table above.

### Commission's Analysis

Commission arrives at the actual purchase quantum as 1175.11 MU for FY 2021-22. The deviation between MSPDCL figure of 1227.15MU and the above figure is due to omission of certain transactions such as banking returns of 86.37MU, banking mode sales of 125.82MU and UI Under drawl of 12.59MU which have taken places during the year and the final quantum utilised after considering the IEX sales of 117.65MU by MSPDCL will leads to 1057.46MU ultimately ignoring Pooled losses quantum. The comments with regard to distribution losses were already made at the relevant place.

## 5.5. Power Purchase Cost

### Petitioner's submission

The actual Power Purchase cost as against the power purchase cost approved in the ARR/Tariff Order for FY 2021-22 is shown in the Table below:

**Table 5.8: Power Purchase Cost for FY 2021-22 (Rs. Crore)**

Sl. No	Sources of Power	Approved in ARR Order		Approve in APR Order		Actuals	
		Total Cost (Rs. Crs)	Average Rate (Rs/kWh)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>						
1	Kopili - I HE	7.60	1.09	0.04	0.00		
2	Kopili - II HE	1.02	1.48	1.34	4.47	0.17	2.18
3	Khandong HE	2.37	1.90	3.52	2.35	3.06	1.75
4	Ranganandi HE Project	25.87	2.46	26.54	2.65	24.89	2.59
5	Doyang HE Project	6.55	5.77	8.89	8.89	6.28	8.40

Sl. No	Sources of Power	Approved in ARR Order		Approve in APR Order		Actuals	
		Total Cost (Rs. Crs)	Average Rate (Rs/kWh)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
6	Assam GBPP	48.47	4.80	44.99	4.50	49.11	3.47
7	Agartala GTPP	24.38	5.05	30.06	4.18	27.10	3.63
	<b>Sub-total</b>	<b>116.26</b>	<b>3.27</b>	<b>115.38</b>	<b>3.84</b>	<b>110.62</b>	<b>3.27</b>
B	<b>CGS - NHPC</b>						
1	Loktak HEP	66.78	3.55	59.55	3.72	51.91	4.37
2	Loktak Free power						
	<b>Sub-total</b>	<b>66.78</b>	<b>2.74</b>	<b>59.55</b>	<b>2.73</b>	<b>51.91</b>	<b>3.13</b>
C	<b>Other</b>						
1	Baramura GBPP Unit IV and V	17.40	3.14	19.91	5.53	25.74	4.46
2	OTPC Pallatana- Unit I	76.71	3.30	93.55	4.07	80.37	3.34
3	OTPC Pallatana Unit II						
	<b>Sub-total</b>	<b>94.11</b>	<b>3.27</b>	<b>113.46</b>	<b>4.27</b>	<b>106.11</b>	<b>3.56</b>
D	<b>New Plants</b>						
1	NTPC Bongaigaon -I	108.95	11.34	165.72	10.36	193.65	6.18
2	NTPC Bongaigaon-II						
3	NTPC Bongaigaon-III						
4	Pare HEP	12.85	5.05	22.53	5.01	17.69	4.96
5	Renewable – Solar	0.68	4.51	0.00	0.00	0.00	0.00
6	Renewable –Non-Solar	0.55	5.46	0.00	0.00	0.00	0.00
	<b>Sub-total</b>	<b>123.02</b>	<b>9.92</b>	<b>188.25</b>	<b>9.18</b>	<b>211.34</b>	<b>6.06</b>
E	<b>Short-term power purchase</b>						
1	IEX Purchase	0.00	0.00	22.40	2.80	21.71	3.43
2	IEX Sales	0.00	0.00	-21.60	2.40		
	<b>Sub-total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.80</b>	<b>0.80</b>	<b>21.71</b>	<b>3.43</b>
F	<b>UI Overdrawl</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.96</b>	<b>3.08</b>
G	<b>Supplementary bills</b>	<b>30.00</b>	<b>0.00</b>	<b>20.00</b>	<b>0.00</b>	<b>29.32</b>	<b>0.00</b>
H	<b>Late Payment Surcharge</b>	<b>7.73</b>		<b>28.33</b>			
I	<b>REC</b>	<b>24.93</b>					
	<b>TOTAL POWER PURCHASE COST</b>	<b>462.82</b>	<b>4.58</b>	<b>525.77</b>	<b>5.35</b>	<b>534.97</b>	<b>4.36</b>

As per the above table, the actual power purchase cost is Rs. 534.97 Crore for FY 2021-22. The actual cost is higher than the approved figure of Rs. 462.82 Crore in ARR of 2021-22.

The Petitioner has paid Rs. 29.32 Crore of supplementary bills to the generators. These bills were raised by the generators as a result of additional costs allowed by the Regulators. The payment of these supplementary bills is uncontrollable on part of the Petitioner. Therefore, the Petitioner requests the Hon'ble Commission to approve the



supplementary bills of Rs. 29.32 Crore for FY 2021-22.

The Hon'ble Commission is requested to approve the power purchase cost as submitted in the above table as the same is uncontrollable on part of MSPDCL.

### Commission Analysis:

The excess amount incurred for power purchase more than the need will be disallowed while approving the True-up for FY 2021-22 upon verification with the Audited Financial Accounts and the relevant additional information given.

The actual power purchase cost allowable for true-up purpose is as follows:

**Table 5.9: Power Purchase Approved by Commission for true-up purpose of FY2021-22**

Sl. No.	Source	Tariff Order 26.4.2021			APR Approved			Actual		
		Energy (MU)	Total Cost (Rs Cr)	CPU (Rs/kWh)	Energy (MU)	Total Cost (Rs Cr)	CPU (Rs/kWh)	Energy (MU)	Total Cost (Rs Cr)	CPU (Rs/kWh)
A	<b>CGS - NEEPCO</b>									
1	Kopili - I HE	69.82	7.60	1.09	0.00	0.04		0.00	0.00	0.00
2	Kopili - II HE	6.90	1.02	1.48	3.00	1.34	4.47	0.78	0.17	0.00
3	Khandong HE	12.50	2.37	1.90	15.00	3.52	2.35	17.51	3.06	1.75
4	Ranganandi HE Project	105.25	25.87	2.46	100.22	26.54	2.65	95.97	24.89	2.59
5	Doyang HE Project	11.35	6.55	5.77	10.00	8.89	8.89	7.48	6.28	8.40
6	Assam GBPP	100.97	48.47	4.80	100.00	44.99	4.50	141.61	49.11	3.47
7	Agartala GTPP I & II	48.28	24.38	5.05	72.00	30.06	4.18	74.75	27.10	3.63
	<b>Sub-total</b>	<b>355.07</b>	<b>116.26</b>	<b>3.27</b>	<b>300.22</b>	<b>115.38</b>	<b>3.84</b>	<b>338.10</b>	<b>110.61</b>	<b>3.27</b>
B	<b>CGS - NHPC</b>									
1	Loktak HEP	188.00	66.78	3.55	160.00	59.55	3.72	118.89	51.91	4.37
2	Loktak Free power	55.90	0.00	0.00	58.00	0.00	0.00	46.70	0.00	0.00
	<b>Sub-total</b>	<b>243.90</b>	<b>66.78</b>	<b>2.74</b>	<b>218.00</b>	<b>59.55</b>	<b>2.73</b>	<b>165.59</b>	<b>51.91</b>	<b>3.13</b>
C	<b>Other</b>									
1	Baramura GBPP IV and V	55.40	17.40	3.14	36.00	19.91	5.53	57.67	25.74	4.46
2	OTPC Pallatana Unit I & II	232.60	76.71	3.30	230.00	93.55	4.07	240.75	80.37	3.34
	<b>Sub-total</b>	<b>288.00</b>	<b>94.11</b>	<b>3.27</b>	<b>266.00</b>	<b>113.46</b>	<b>4.27</b>	<b>298.42</b>	<b>106.11</b>	<b>3.56</b>
D	<b>New Plants</b>									
1	NTPC Bongaigaon- 1,2&3	96.08	108.95	11.34	160.00	165.72	10.36	313.13	193.65	6.18
2	Para HEP	25.45	12.85	5.05	45.00	22.53	5.01	35.67	17.69	4.96
3	Renewable – Solar	1.50	0.68							
4	Renewable – Non Solar	1.00	0.55							
	<b>Sub-total</b>	<b>124.03</b>	<b>123.02</b>	<b>9.92</b>	<b>205.00</b>	<b>188.25</b>	<b>9.18</b>	<b>348.80</b>	<b>211.34</b>	<b>6.06</b>
	<b>All CGS Total</b>	<b>1011.00</b>	<b>400.16</b>	<b>3.96</b>	<b>989.22</b>	<b>476.64</b>	<b>4.82</b>	<b>1150.91</b>	<b>479.97</b>	<b>4.17</b>
E	<b>Short-term power purchase</b>									
1	IEX Purchase	-	-	-	80.00	22.40	2.80	63.37	21.71	3.43
2	IEX Sales	-	-	-	-90.00	-21.60	2.40	0.00	0.00	0
	<b>Sub-total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-10.00</b>	<b>0.80</b>	<b>-0.80</b>	<b>63.37</b>	<b>21.71</b>	<b>3.43</b>
F	<b>Banking Returned energy</b>	-	-	-	<b>115.83</b>		<b>0</b>	<b>86.37</b>		
	Banking mode Sales				-82.00			-125.82		
G	<b>UI Over drawl</b>	-	-	-			<b>0</b>	<b>12.87</b>	<b>3.96</b>	<b>3.08</b>
	<b>UI Under drawl</b>							<b>-12.59</b>	<b>-4.38</b>	
H	<b>Supplementary bills</b>	-	<b>30.00</b>	-		<b>20.00</b>	<b>0</b>		<b>23.34</b>	<b>0.00</b>

Sl. No.	Source	Tariff Order 26.4.2021			APR Approved			Actual		
		Energy (MU)	Total Cost (Rs Cr)	CPU (Rs/kWh)	Energy (MU)	Total Cost (Rs Cr)	CPU (Rs/kWh)	Energy (MU)	Total Cost (Rs Cr)	CPU (Rs/kWh)
I	REC Certificates		24.93			28.33				
J	late Payment surcharge		7.73							
	<b>Grand Total</b>	<b>1011.00</b>	<b>462.82</b>	<b>4.58</b>	<b>1013.05</b>	<b>525.77</b>	<b>5.19</b>	<b>1175.11</b>	<b>524.60</b>	<b>4.46</b>

<b>Loss on account of Outside Sales and Banking Energy sales in the year</b>		-22.20	
<b>Power Purchase cost Approved after loss reduction adjustment</b>		<b>502.40</b>	

The Items now considered additionally are a) UI Under drawl amount of Rs.4.38Cr, b) Supplementary bills amount of Rs.29.32Cr is reduced by the Late Payment Surcharge value of Rs.5.98Cr and C) The derived Loss amount of Rs.22.20Cr sustained on account of Sale of surplus energy (IEX Sales) (detailed calculation is appended below).

Sl.No.	CGS purchase cost adopted	MU	Rs.Crs	CPU
a	CGS Units Purchase cost	1150.91	479.97	4.170
b	UI Over drawl	12.87	3.96	3.077
c	UI Under drawl	-12.59	-4.38	
d	Transmission charges allowed		82.03	
e	Supplementary Bills		23.34	
	<b>Total CGS Power cost derived</b>	<b>1151.19</b>	<b>584.92</b>	<b>5.081</b>

S.No.	Details	MU	MU	(Rs.Crs)	CPU
I	Total IEX Sales made in 2021-22		117.65		
II	<b>Banking energy:</b>				
III	a) Received Banking units	86.37			
	b) Banking mode Sales	125.82			
	<b>Surplus units from Banking (a-b)</b>		-39.45		
III	<b>Gross qty used for OSS &amp; BNKG</b>		<b>157.10</b>		
IV	Off-set by IEX Purchases		63.37	21.71	3.426
V	Remaining from CGS Purchases		93.73	47.62	5.081
VI	<b>Cost of IEX and CGS units</b>		<b>157.10</b>	<b>69.33</b>	<b>4.413</b>
VII	Revenue at avg. rate for these units		117.65	47.13	4.006
	<b>Loss sustained in IEX Sales (VI-VII)</b>			<b>-22.20</b>	

## 5.6. Transmission Charges

### Petitioner's Submission

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC charges. The summary of transmission charges approved by the Commission in ARR order and the actual charges paid by MSPDCL for FY 2021-22 is as follows:

**Table 5.10: Transmission Charges for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Approved in	Approved in	Actual
--------	-------------	-------------	-------------	--------

		ARR Order	APR Order	
1	PGCIL Charges	83.06	75.04	81.22
2	MSPCL Charges	96.27	70.96	64.20
3	SLDC Charges	0.82	0.00	0.01
4	NERLDC Charges	0.71	0.67	0.80
	<b>Total</b>	<b>180.85</b>	<b>146.67</b>	<b>146.24</b>

The transmission charges are uncontrollable in nature as the same are levied based on approved cost and orders of CERC and JERC as applicable for inter-state and intra state transmission respectively.

As such, MSPDCL requests the Hon'ble Commission to approve the actual Transmission Charges of Rs. 146.24 Cr. for FY 2021-22, as shown in the Table above.

#### **Commission Analysis:**

The approved MSPCL charges in the Tariff order Dt 26<sup>th</sup> April 2021 were at Rs.96.27 Crs and the same was revised to Rs.64.20Crs towards their True-up figure now The charges now claimed is the amount received from State government in the form of subsidy grant to be passed on to MSPCL. **Hence, this is only a mere act of forwarding government money to MSPCL and no money is actually paid out of own funds of MSPDCL.** In fact, there is no monthly billing mechanism exists between MSPCL & MSPDCL till date and as a result there is no need to consider these charges in true-up until such time, there exists real payment mechanism is practically in place between these two entities.

Hence, these intra-State transmission charges are fully disallowed from Transmission charges claim. Thereby, the approved all other transmission charges for FY2021-22 is amounting to **Rs.82.04crs only.**

#### **5.7. Operation and Maintenance Expenses**

The Operation and Maintenance (O&M) expenses comprises of Employee Expenses, Repair and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses. In the FY 2021-22, MSPDCL has incurred the O&M expenses as follows:

##### **5.7.1 Employee Cost**

###### **Petitioners Submission**

Employee Expenses includes the Basic Pay, Dearness Pay, Dearness allowances, house

rent allowances, and other allowances, new pension scheme paid to the MSPDCL cadre, staff etc. The liabilities for terminal benefits for the employees transferred from the erstwhile Electricity Department of Manipur are directly borne by the State Government and are not included in the employee cost claimed here. The actual employee expenses based on audited accounts for FY 2021-22 as compared with those approval in the Tariff Order are shown in the Table below:

**Table 5.11: Employee Expenses for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR Order	Approved in APR Order	Actual
Total Employee Expenses	116.43	65.49	59.36

The actual employee expenses are much lower than the employee expenses approved by the Hon'ble Commission for FY 2021-22. The break-up of actual employee strength during FY 2021-22 is shown below:

**Table 5.12: Actual Employee Strength of MSPDCL in FY 2021-22**

Sl. No	Particulars	Employee Strength as on 1 <sup>st</sup> April 2021	Employee Strength as on 31 <sup>st</sup> March 2022
1	Regular	1239	1139
2	Work charge	144	121
3	Muster roll	22	22
4	Contract	17	15
	<b>Total</b>	<b>1422</b>	<b>1297</b>

Decline in employee strength than the ones considered in the ARR projections is the reason for the variation in employee expenses.

MSPDCL, thus, requests the Hon'ble Commission to approve the actual Employee Expenses of Rs.59.36 Crore for FY 2021-22.

#### **Commission Analysis:**

The employees cost comprises of Regular Employees, Work Charged, Muster Roll and Contract employees also. **The employee cost is now approved at Rs.59.36Crs actually incurred by MSPDCL during 2021-22 which is far lesser than the figures approved in Tariff Order and APR order as well.**

#### **5.7.2 R&M Expenses**

##### **Petitioner's Submission**

Repair and Maintenance (R&M) Expenses includes all expenditure incurred on the

maintenance and upkeep of distribution assets. It includes the expenses on repairs and maintenance of Plant and Machinery, Transformers, Lines, cable network, Vehicles, Office equipment, etc. The actual R&M expenses based on audited accounts for FY 2021-22 are given below as per the different accounting heads used for booking R&M expenses:

**Table 5.13: Break-up of R&M Expenses for FY 2021-22 (Rs. Crore)**

S No	Particulars	Actual
1	Repair & Maintenance Expenses (Plant and Machinery)	7.34
2	Repair & Maintenance Expenses (Others)	1.66
3	O&M Expenses	15.19
4	Stores and Consumables	1.21
	<b>Total</b>	<b>25.40</b>

The actual R&M expenses as compared as compared to the approved expenses are as follows:

**Table 5.14: R&M Expenses for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR order	Approved in APR	Actual order
R&M Expenses	19.44	11.25	25.40

The actual R&M expenses are higher than the approved values by the Hon'ble Commission for FY 2021-22. The R&M expenses approved by Hon'ble Commission in the ARR order of FY 2021- 22 has been around 1% of the approved GFA. The reason of this is that the R&M expenses are projected on low baseline. However, the actual R&M expenses are around 2% of the asset base The Petitioner submits that, R&M expenses are uncontrollable in nature as the distribution utility is required to spend on maintenance of network to comply with the Standards of Performance laid by the Commission.

Hence, in the above context, MSPDCL therefore, requests the Hon'ble Commission to approve the actual R&M expenses of Rs. 25.40 Crore for FY 2021-22.

#### **Commission Analysis:**

On verification of incurred R&M Expenses as per audited Accounts Statement, the R&M related expenses are only Rs.21.4760Cr out of the overall Other Expenses of Rs.25.9960Cr indicated in Note-18 of the said statement. The Licensee has additionally preferred to add Change in Inventories (Loss/theft of Stock) amount of Rs.3.9233Cr also under R&M Expenses, but this kind of transaction can't be entertained to be passed on to consumers which amounts

to burdening the consumers due to inefficiencies of the Licensee.

### 5.7.3 Administration and General Expenses

#### Petitioner's Submission

Administrative and General (A&G) Expenses includes all expenditure incurred in operating a business such as:

- Travel and conveyance expenses
- Consultancy and regulatory fees
- IT services and outsourcing cost
- Office Expenses
- Publication Expenses
- Other administration Expenses
- Telephone Hiring of vehicle etc.

The A&G expenses incurred by MSPDCL in FY 2021-22 based on audited accounts are as follows:

**Table 5.15: A&G Expenses for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Actuals
1	Auditors Remuneration	0.01
2	ROC Filing Fees	0.02
3	Advertisement Expenses	0.34
4	Bank Charges	0.05
5	BEE charges	0.58
6	Consultancy Charges	0.41
7	Ex-gratia payment	0.23
8	JERC Fees and Expenses	0.52
9	Office Expenses	0.56
10	Legal Fees and Charges	0.03
11	Printing & Stationary Expenses	0.03
12	Telephone Expenses	0.23
13	Travelling Exp	0.03
14	Vehicle hiring, Repairs and Maintenance	1.46
15	Interest and Penalty	0.00
	<b>Total</b>	<b>4.52</b>

The actual A&G expenses as compared to the approved figure in ARR of FY 2021-22 is as follows:

**Table 5.16: A&G Expenses for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR Order	Approved in APR Order	Actual Order
A&G Expenses	10.10	8.45	4.52

MSPDCL requests the Hon'ble Commission to approve the actual A&G expenses of Rs. 4.52 Crore based on the audited accounts for FY 2021-22 and based on the detailed break-up of the actual cost as provided above.

#### Commission Analysis:

The Commission though it had noticed Interest and penalty amount under the Administrative and general Expenses but it is very negligible. Hence, the amount as claimed by the Licensee to the tune of Rs.4.52Cr is now approved towards A&G Expenses true-up for FY2021-22.

#### Petitioners submission:

The total O&M expenses incurred in FY 2021-22 as per audited accounts are shown in the Table below:

**Table 5.17: Actual O&M Expenses for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Approved in ARR Order	Approved in APR Order	Actual Order
1	Employee Expenses	116.43	65.49	59.36
2	R&M Expenses	19.44	11.25	25.40
3	A&G Expenses	10.10	8.45	4.52
	<b>Total</b>	<b>145.97</b>	<b>85.19</b>	<b>89.28</b>

The actual O&M expenses are thus, lower than the O&M expenses approved by the Hon'ble Commission in the Tariff Order for FY 2021-22. Variation in Employee expenses is the main reason for this deviation as explained earlier. MSPDCL requests the Hon'ble Commission to approve the actual O&M expenses of Rs. 89.28 Crore for FY 2021-22.

#### Commission Analysis:

The Commission approved the following expenses towards O&M Expenses for FY 2021-22. The total O&M expenses approved for FY 2020-21 in true-up is as Tabulated below:

**Table 5.18: Actual O&M Expenses for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	Approved in Tariff Order	Approved APR Order	Actual	Commission approved
1	Employee Expenses	116.43	65.49	59.36	59.360
2	R&M Expense	19.44	11.25	25.40	21.476
3	A&G Expense	10.10	8.45	4.52	4.520
	<b>Total</b>	<b>145.97</b>	<b>85.19</b>	<b>89.28</b>	<b>85.356</b>

## 5.8. Interest on Working Capital

### Petitioner's Submission

The interest on working capital is calculated as interest incurred on operation and maintenance expenses for one month, power purchase cost for one month, Receivables equivalent to one (1) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs as per clause 29.4 of the JERC (Multi Year Tariff) Regulations 2014.

The computation of normative Interest on Working Capital (IoWC) for MSPDCL for FY 2021-22, is shown in the Table below:

**Table 5.19: Interest on Working Capital for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	Approved in Tariff Order	Approved APR Order	Actual
1	O & M Expenses one month			7.44
2	Maintenance of spares @ 1% of GFA Escalated by 6%			8.02
3	Receivable equivalent to one month			38.31
4	<b>Less: Consumer Security Deposit</b>			
5	<b>Net WC requirement</b>			53.77
6	SBAR rate as on 01.04.2018			12.15%
7	<b>Interest of Working Capital</b>			6.53

MSPDCL requests the Hon'ble Commission to approve the IoWC of Rs.6.53 Crore for FY 2021- 22.

### Commission's Analysis:

The admissibility of this charge would depend upon actual availment of short-term borrowings towards working capital needs by the Licensee. In order to reduce the unnecessary financial burden on the retail consumers, also keeping in view the continuous government financial support for revenue related expenditure and finding no compelling need to draw any short-term loans for working capital needs the Commission don't wish to approve these charges in order not to burden retail consumers unnecessarily.

**Thus, the Commission totally disallows Interest on Working Capital amount projected by the Licensee on normative basis and moreover no such**



expenditure was ever seen incurred on this head even to consider. The opinion of similar kind was already expressed categorically by the Commission previously and advised not to venture to claim these charges.

## 5.9. Gross Fixed Assets and Depreciation

### Petitioner's Submission

The depreciation for FY 2021-22 has been claimed as per the audited accounts.

**Table 5.20: Actual Depreciation for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR Order	Approved in APR Order	Actuals
Depreciation	1.84	1.83	21.79

It may be noted that the actual depreciation claimed above does not include depreciation on assets funded through grants and the same has been deducted from the total depreciation claimed. The difference in actual and approved depreciation is due to the difference in methodology adopted for calculation of depreciation on assets funded through grants. The Commission has assumed that 90% of the assets are funded through grants and as such approved only 10% of the depreciation on the total asset base. However, in actual, the assets transferred to MSPDCL at the time of restructuring of erstwhile EDM are not booked as grants but as capital reserve/ equity pending allotment. As such, the depreciation should be allowed on the entire assets transferred from the erstwhile EDM into the corporate entity of MSPDCL. the detailed break up of actual depreciation booked in accounts is shown below:

**Table 5.21: Depreciation for FY 2021-22 (Rs. Crore)**

Asset Category	Average value of asset	Depreciation charged in the year	Prior period Depreciation	Amortization of deferred income	Total
<b>Distribution Assets</b>					
Plant & Machinery	1482.86	13.58	6.34	97.60	117.53
Building	47.20	0.28		0.45	0.72
Furniture & fittings	1.29	0.03		0.08	0.11
Computer	5.89	0.01		2.51	2.52
Heavy Equipments	0.05	0.00		0.00	0.00
Heavy Vehicle	0.88	0.01		0.05	0.05
Office Equipments	0.04	0.00		0.00	0.00
Vehicle	5.74	0.00		0.59	0.59
Land	0.35	0.00		0.00	0.00
Software	8.38	0.07		14.07	14.14
<b>Generation Assets</b>					
Plant & Machinery	49.25	1.25		0.00	1.25

Building	13.48	0.22		0.00	0.22
Furniture & fittings	0.03	0.00		0.00	0.00
Computer	0.00	0.00		0.00	0.00
Office Equipments	0.05	0.00		0.00	0.00
Vehicle	0.03	0.00		0.00	0.00
<b>Total</b>	<b>1615.53</b>	<b>15.44</b>	<b>6.34</b>	<b>115.36</b>	<b>137.14</b>

In the above table, the depreciation charged on the assets booked as capital reserve / equity is Rs. 21.79 Crore (including prior period depreciation). The depreciation on the assets funded through grants is represented as amortization of deferred income. The Petitioner has subtracted the depreciation on assets funded through grants from the depreciation charged on charged on assets booked as capital reserve.

MSPDCL requests the Hon'ble Commission to approve the depreciation of Rs.21.79 Crore for FY 2021-22.

### **Commission's analysis**

The actual amount of depreciation reflected in Audited annual accounts is only Rs.15.4417 CRs for FY 2021-22. While as per filing the claimed depreciation also includes prior-period related depreciation amounting to Rs.6.3478CRs, which cannot be considered at all for True-up purpose as it pertains to internal adjustment only and shall not be passed on to consumers. In case of MSPDCL, it is construed that the capital grants and other funds are only being utilized all the time for asset creation and major chunk is being availed from Manipur Government only, which can be witnessed from Audited Accounts. Hence, the depreciation amount now be allowed at 10% of the actual depreciation with an assumption that MSPDCL might have invested only smaller portion of its own fund amount for asset creation. **Thus, the depreciation now allowable as a matter of gesture is Rs.1.544CRs only for true-up purpose for FY 2021-22.**

## **5.10. Interest on Loan**

### **Petitioner's Submission**

The major part of capital expenditure undertaken by MSPDCL is funded by the State Government's grants and Central Government's grant. However, in addition to these sources of funds, MSPDCL has also taken some amount of loan from REC for RAPDRP-B Project and DDUGJY project for meeting counterpart funding as per GoI scheme guidelines. The repayment of loans during the year has been considered as per principal repayment made, and the repayment has been considered proportionately based on

the opening loan balance.

The details of loans with the computation of Interest on loan are shown in the Table below:

**Table 5.22: Break-up of Loan for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Loan 1 (PFC R-APRDP-A)	Loan 1 (PFC R-APRDP-B)	Loan 1 (REC R-APRDP-B)	DDUJGY	Prepaid Meter Loan (Hill & Valley) (REC)	SLTLL (PFC)	SLTLL (REC)
1	Opening Loan	14.35	352.83	27.92	19.01	0.00	55.74	55.74
2	Addition during the Year		0.91			63.09		
3	Repayment during the year			3.98	2.05			
4	Closing Loan	14.35	353.74	23.93	16.96	63.09	55.74	55.74
5	Average Loan							
6	Rate of Interest	9.00%	9.00%	11.70%	11.00%	10.45%	9.50%	9.50%
7	Interest & Finance Charges			3.04	1.74	1.84	5.19	5.34

The interest on loan of Rs. 17.16 Crore has been paid out but not booked. Instead, this amount has been capitalized.

**Table 5.23: Interest on Loan for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR Order	Approved in APR Order	Actual Order
Interest & Finance Charges	35.79	11.76	17.16

MSPDCL requests the Hon'ble Commission to kindly approve the interest on loan of Rs. 17.16 Crore for FY 2021-22.

#### **Commission Analysis:**

The Licensee has preferred to claim Rs.17.16Cr which was already booked under capitalisation as interest on Loans for True-up purpose. This is totally an unethical attempt made by the Licensee for claiming it under this head of expenses. Any asset expenditure which was capitalised would only eligible for depreciation upon it over the useful life of that asset and gets added to capital base. Any amount already capitalized will not be entitled for claiming again as revenue item at the same time simultaneously for true-up reimbursement. **Hence, the claim of licensee is totally disallowed without any second thought.**

At the same time, an amount of Rs.10.1233Crs were reflected as spent towards finance cost as per audited balance sheet of FY21-22. MSPDCL replied in response to additional information that an amount of Rs.10.08Crs was incurred for interest on Atmanirbhar Bharat Loan and the remaining Rs.0.04Crs is spent for LC maintenance bank charges. But this amount was erroneously claimed at Rs.10.53crs in the above table-5.22. Sympathising at the Licensee's unfair approach to somehow claim higher figure for a legitimate expenditure, the Commission as one-time consideration had **allowed the finance cost of Rs.5.40Crs as against Rs.17.16Crs of wrong claim.** The above Rs.5.40 is made up of Rs.5.36Crs for Atmanirbhar loan and the balance Rs.0.04Crs is for L.C charges against Interest & finance charges after true-up in FY 2021-22. **The Atmanirbhar Bharat Loan interest is limited to Rs.5.36Crs only because same amount was claimed for FY 2022-23 towards one-year interest.**

#### 5.11. Return on Equity

##### Petitioner's Submission

As per audited accounts, the RoE is computed on paid up capital of Rs. 10.05 Crore at the rate of 15.50% as stated in clause 26.1 of JERC (Multi Year Tariff) regulations 2014.

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**Table 5.24: Return on Equity for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR	Approved in	Actual Order
Average Equity	10.05	10.05	10.05
RoE %	15.50%	15.50%	15.50%
Return on Equity	1.56	1.56	1.56
MAT Rate applicable	0.00%	0.00%	0.00%

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of Rs.1.56 Crore for FY 2021-22.

##### Commission Analysis:

The Commission approves the return on equity at **Rs.1.56 Crs** without considering the Income tax component and the remaining amount will be admitted depends upon the incidence of tax on actual basis. **The Financial formats from S1 to S4 was omitted by MSPDCL and not submitted in the ARR submission for its verification.**

### 5.12. Write-Off of Bad Debts

#### Petitioner's Submission

As per the audited accounts for FY 2021-22, the receivables from consumers is Rs. 570.18 Crore. Some of these receivables are pending since the time of unbundling of EDM.

MSPDCL has booked Rs 17.58 Crore as provision for bad and doubtful debts in the accounts for FY 2021-22. Therefore, MSPDCL requests the Hon'ble Commission to allow write off of Rs 17.58 Crore of the receivables as bad debts as per provisions of clause 89.8 of the JERC (Multi Year Tariff) Regulations 2014.

#### Commission's analysis

The Writing-off the Bad debts is not acceptable to the Commission, for the reason that the Licensee had not made any assiduous efforts so far in collection of the pending legacy dues accumulated to the tune of above Rs.431 Crs to the end of 31.03.2021. Bad debts withdrawal can only be allowed when Commission is thoroughly satisfied that despite the best efforts by Licensee the dues are proved to be non-recoverable and the onus of such proving rests with the MSPDCL. Hence, bad debts write off is dis allowed totally. **No approval for Bad debts amount is made by Commission.**

### 5.13. Non-Tariff Income

#### Petitioner's Submission

The Hon'ble Commission approved Non-Tariff Income of Rs. 0.39 Crore in the ARR for FY 2021- 22. The actual Non-Tariff Income earned by MSPDCL in FY 2021-22 was Rs. 5.74 Crore, as shown in the Table below:

**Table 5.25: Break-up of Non-tariff Income for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Actual
1	Interest Income	4.20
2	Agency Charges @ 3.75%	0.94
3	Sale of Scrap	0.04
4	Others	0.56
5	<b>Total</b>	<b>5.74</b>

The actual Non-tariff income as compared to the approved figure in ARR of FY 2021-22 is as follows:

**Table 5.26: Non-tariff Income for FY 2021-22 (Rs. Crore)**

Particulars	Approved in ARR Order	Approved in APR Order	Actual Order
Non-tariff Income	6.80	8.55	5.74

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of Rs. 5.74 Crore for FY 2021-22.

**Commission's analysis**

- a) The Commission approved the **Non-Tariff income (NTI) amount at Rs.5.74 Crs** as indicated in this true-up petition **after due verification with the audited accounts statements.**
- b) Besides, the **Efficiency Gains amount of R.16.00 Crs** as approved in the Tariff Order Dt.26.04.2021 is retained even for true-up purpose as the performance of Licence still needs to improve from Commission's point of view.

**5.14. Aggregate Revenue Requirement**

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2021-22 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2021-22, is given in the Table below:

**Table 5.27: Aggregate Revenue Requirement for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Approved in ARR Order	Approved in APR Order	Actual
1	Cost of power purchase	462.82	525.77	534.97
2	Transmission charges	180.85	146.67	146.24
3	O&M Expenses	145.97	85.19	89.28
	<i>Employee Expenses</i>	<i>116.43</i>	<i>65.49</i>	<i>59.36</i>
	<i>A&amp;G Expenses</i>	<i>10.10</i>	<i>8.45</i>	<i>4.52</i>
	<i>R&amp;M Expenses</i>	<i>19.44</i>	<i>11.25</i>	<i>25.40</i>
4	Depreciation	1.84	1.83	21.79
5	Interest on Loan	35.79	11.76	17.16
6	Interest on Working Capital	0.00	0.00	6.53
7	Bad Debt	0.00	0.00	17.58
	<b>Total Cost</b>	<b>827.28</b>	<b>771.22</b>	<b>833.55</b>
8	Add: RoE	1.56	1.56	1.56
9	Add: Income Tax	0.00	0.00	0.00
	<b>Total</b>	<b>828.84</b>	<b>772.78</b>	<b>835.10</b>
10	Less: Non-tariff Income	6.80	8.55	5.74
11	Less: Efficiency Gains	16.00	40.00	
	<b>Aggregate Revenue Requirement (ARR)</b>	<b>806.04</b>	<b>724.23</b>	<b>829.37</b>
	Less: Revenue from sale of	12.67		49.68

	surplus power			
	<b>Net ARR</b>	<b>793.37</b>	<b>724.23</b>	<b>779.69</b>

The revenue from sale of power to consumers for FY 2021-22 was Rs. 507.99 Crore as approved by Hon'ble Commission in its ARR order for FY 2021-22. The actual revenue from sale of power to consumers in FY 2021-22 is Rs. 459.76 Crore as per audited accounts. The revenue from sale of surplus power is Rs. 49.68 Crore. MSPDCL requests the Hon'ble Commission to approve the same.

### Commission's analysis

As explained against each cost element of ARR items, the approval of the ARR has been made by the Commission with due verification of the Statutory auditors certified annual accounts for FY 2021-22. The MSPDCL exceeded the APR approved value of Rs.724.33 Crs and now claimed Rs.779.69 Crs as actuals is apparently high and needs scrutiny. The true-up petition is finalisation by Commission based on Audited annual accounts of FY 2020-21 and the approved ARR details are as follows:

**Table 5.28: Commission approved ARR after True-Up (Rs. Crore)**

Sl. No.	Particulars for FY 2021-22	T.O. Dt 26/4/2021	Approved in APR	Actuals claimed	True-Up Approved
A	Cost of power purchase	462.82	497.44	534.97	502.40
B	RPO Obligation		28.33	0.00	0.00
C	Inter Transmission charges	83.06	75.04	81.22	81.22
D	Intra STU Transmission charge	96.27	70.96	64.20	0
E	SLDC & NERLDC Charges	1.52	0.67	0.81	0.82
F	O&M Expenses	145.97	85.19	89.28	89.28
1	<i>Employee Expenses</i>	<i>116.43</i>	<i>65.49</i>	<i>59.36</i>	<i>59.36</i>
2	<i>A&amp;G Expenses</i>	<i>10.10</i>	<i>8.45</i>	<i>4.52</i>	<i>4.52</i>
3	<i>R&amp;M Expenses</i>	<i>19.44</i>	<i>11.25</i>	<i>25.40</i>	<i>21.48</i>
G	Depreciation	1.84	1.83	21.79	1.54
H	Interest on Loan	35.79	11.76	17.16	5.40
I	Interest on Working Capital	0.00	0.00	6.53	0
J	Bad Debt write-off	0.00	0.00	17.58	0
K	Add: Return on Equity	1.56	1.56	1.56	1.56
L	Add: Income Tax	-	-	-	0
	Gross Aggr. Rev. Requirement	828.84	772.78	835.10	678.30
M	Less: Non Tarif Income	6.80	8.55	5.74	5.74
N	Less: Efficiency Gains	16.00	0.00	0.00	16.00
	Net Aggr. Rev. Requirement	806.04	764.23	829.36	656.56
O	Revenue from surplus power sale	12.67	0.00	49.68	47.13
P	Net ARR after OSS	793.37	764.23	779.68	609.43
Q	Govt. Subsidy U/s 65	285.38	301.38	272.19	207.99
R	Net cost after subsidy	507.99	462.85	507.49	401.44
S	Revenue from Retail Sales	507.99	526.76	459.76	459.76
T	Revenue Surplus / (Deficit)	0.00	63.91	-47.73	58.32
	<b>Gap Status</b>		<b>Surplus</b>	<b>Deficit</b>	<b>Surplus</b>

It was replied by MSPDCL in the additional information that the revenue from Outside State Sales is Rs.47.13Crs only instead of Rs 49.68Crs as preferred in the petition. The SLDC & NELDC charges are allowed based on the details provided by MSPDCL subsequently.

**The Subsidy received by MSPDCL from the Government of Manipur is considered by the Commission after subtracting the figure of Rs.64.20Crs pertaining to MSPCL Grants amount.**

### Revenue Gap

#### Petitioner's Submission

The Revenue Gap of MSPDCL for FY 2021-22 as against the Revenue Gap approved by the Hon'ble Commission in the ARR Order for FY 2021-22 is shown in the Table below:

**Table 5.29: Revenue Gap for FY 2021-22 (Rs. Crore)**

Sl. No	Particulars	Tariff Order Approved	As per APR Order	Actual (MSPDCL)	True-Up Approved
1	Net ARR after outside sales income	793.37	724.23	779.69	609.43
2	Total Revenue from consumer tariff	507.99	423.46	459.76	459.76
3	Revenue Gap before Govt. Subsidy (1-2)	285.38	300.77	319.93	149.67
4	State Government Revenue Subsidy	285.38	216.00	272.19	207.99
5	Revenue Gap / (Surplus) (4-3)	0.00	-84.77	-47.74	+58.32

As can be seen from the above Table, the Revenue Gap in ARR of FY 2021-22 was largely met by State Government subsidy of Rs 272.19 Crore.

Based on the audited ARR and revenue figures mentioned in the table above, MSPDCL requests the Hon'ble Commission to pass the approve the revenue gap of INR 47.74 crores and pass through the same in future ARR calculations. ***While the Commission observed a surplus of Rs.58.32Crs (under last column) accrued to MSPDCL after True-Up exercise.***

#### Commission Analysis:

The details of category wise actual revenue realised by MSPDCL during the financial year is tabulated below for reference.

**Category wise revenue realised from Retail supply consumers in FY2021-22**

S No.	Particulars	T.O Dt 26/4/21	Revenue	APR Order	Revenue	Actual-audited	Revenue
A	LT Supply	MU	Rs.Crs	MU	Rs.Crs	MU	Rs.Crs
1	Kutir Jyoti	4.10	1.33	4.13	1.30	4.37	2.60
2	Domestic	441.28	282.68	458.09	291.59	523.62	309.31
3	Commercial LT	59.00	50.50	63.57	53.83	65.95	39.00



S No.	Particulars	T.O Dt 26/4/21	Revenue	APR Order	Revenue	Actual-audited	Revenue
4	Public Lighting	3.86	3.75	3.66	3.56	4.12	2.40
5	PWW	1.29	1.31	1.28	1.30	1.38	0.80
6	Irrigation and Agriculture	1.15	0.55	1.15	0.55	1.23	0.70
7	Cottage and Small Industries	19.47	10.98	22.28	12.42	20.77	12.31
	<b>Total - LT category</b>	<b>530.15</b>	<b>351.11</b>	<b>554.16</b>	<b>364.55</b>	<b>621.44</b>	<b>367.12</b>
<b>B.</b>	<b>HT Supply</b>						
8	Commercial HT	19.98	22.35	21.54	24.26	21.31	12.57
9	Public Water Works	23.99	27.44	23.49	26.97	25.59	15.10
10	Irrigation and Agriculture	0.75	0.50	0.75	0.48	0.80	0.50
11	Medium Industries	3.92	3.71	4.49	4.15	4.18	2.50
12	Large Industries	8.15	9.52	10.15	11.50	8.69	5.10
13	Bulk Supply	90.19	93.36	92.14	94.85	96.25	56.90
	<b>Total - HT category</b>	<b>146.98</b>	<b>156.88</b>	<b>152.56</b>	<b>162.21</b>	<b>156.82</b>	<b>92.64</b>
	<b>Grand Total of (LT &amp; HT)</b>	<b>677.13</b>	<b>507.99</b>	<b>706.72</b>	<b>526.76</b>	<b>778.26</b>	<b>459.76</b>
14	Outside State Sales	50.13	12.67	90.00	21.60	117.65	47.13
15	<b>Revenue from All Sources</b>	<b>727.26</b>	<b>520.66</b>	<b>796.72</b>	<b>548.36</b>	<b>895.91</b>	<b>506.89</b>

The actual revenue realised by MSPDCL is abnormally on lower side to an astonishing figure of **Rs.119.99 Crs** when compared with the usual methodology Commission adopts in revenue determination process every year and the revenue calculation details so made by the Commission is placed below for the sake of eye-opening to the Licensee as to how they are missing so much of revenue of **Rs.119.99Crs** (about 26.10% of collection) under the prevailing revenue collection mechanism. This could be due to the reason, the revenue considered in Annual Accounts statement might have been the Revenue actually collected instead of what should have been realised as per demand raised or the Billing methodology by MSPDCL. If so it is adopting a defective revenue collection mechanism needing thorough overhaul or rectify the billing software under use. The AT&C losses monitoring will identify the real root cause of the problem. The following table explains the category wise under collections accruing.

Comparative statement of Revenue under collection discrepancy in FY 2021-22

Sl. No.	Particulars	Actual Revenue in FY2021-22		Commission based Revenue	Variance with Actuals
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5=(4-3)</b>
<b>A</b>	<b>LT Supply</b>	<b>MU</b>	<b>Rs.Crs</b>	<b>Rs.Crs</b>	<b>Rs.Crs</b>
1	Kutir Jyoti	4.37	2.60	1.3956	-1.20
2	<b>Domestic</b>	523.62	309.31	336.5492	<b>27.24</b>

3	<b>Commercial LT</b>	65.95	39.00	54.444	<b>16.44</b>
4	<b>Public Lighting</b>	4.12	2.40	4.0368	<b>1.64</b>
5	<b>Public Water Works</b>	1.38	0.80	1.4124	<b>0.61</b>
6	Irrigation and Agriculture	1.23	0.70	0.0288	-0.67
7	Cottage & Small Industries	20.77	12.31	11.6928	-0.62
	<b>Total - LT category</b>	<b>621.44</b>	<b>367.12</b>	<b>410.5596</b>	<b>43.44</b>
<b>B.</b>	<b>HT Supply</b>	<b>MU</b>	<b>Rs.Crs</b>	<b>Rs.Crs</b>	<b>Rs.Crs</b>
8	<b>Commercial HT</b>	21.31	12.57	23.7753	<b>11.21</b>
9	<b>Public Water Works</b>	25.59	15.10	29.4000	<b>14.31</b>
10	<b>Irrigation and Agriculture</b>	0.80	0.50	0.5264	<b>0.03</b>
11	<b>Medium Industries</b>	4.18	2.50	3.9791	<b>1.48</b>
12	<b>Large Industries</b>	8.69	5.10	10.1865	<b>5.09</b>
13	<b>Bulk Supply</b>	96.25	56.90	101.3245	<b>44.43</b>
	<b>Total - HT category</b>	<b>156.82</b>	<b>92.64</b>	<b>169.1918</b>	<b>76.55</b>
	<b>Grand Total of (LT &amp; HT)</b>	<b>778.26</b>	<b>459.76</b>	<b>579.7514</b>	<b>119.99</b>

The under collected of revenue from HT Consumers is Rs.76.55Crs and from LT category it is Rs.43.44Crs. The relevant consumer categories from which the revenue is under collected is shown in bold character for easy comprehension. If this situation is allowed to continue unabated, there will be a financial crunch sooner for MSPDCL as the revenue under recovery is to the extent of 26.10% than expected.

#### Conclusion on gap:

The final Gap so arrived at by the Commission after True-Up process exercise of FY 2021-22 with due consideration to the Audited Accounts Statement figures is **Rs.58.32Crs** (Rupees fifty-eight crores and thirty-two lakhs only) of surplus made by MSPDCL. Of this surplus One-third (1/3<sup>rd</sup>) amount Rs.19.44Crs (Rupees Nineteen crores and forty-four lakhs only) will be clawed back for passing it on to Retail Consumers through the ARR in FY 2023-24 and the balance Rs.38.88Crs is kept at the absolute disposal-off the licensee.

## 6. Annual Performance Review for FY 2022-23

### 6.1. Background

The Petitioner humbly submits that the present APR is based on actual provisional expenses of FY 2022-23 from first six-month data available for FY 2022-23. The comparison of the projected expenses and revenue has been made with the expenses and revenue considered by Hon'ble Commission in the ARR of FY 2022-23 as approved in the JERC tariff Order in Petition (ARR & Tariff) (henceforth referred as 'Approved' order with reference to FY 2022-23). However, the Petitioner requests Hon'ble Commission to review the expenses and revenue for FY 2022-23 based on the trend observed as per actual data

### 6.2. Energy sales

#### Petitioner's Submission

MSPDCL caters to a diverse consumer mix comprising of:

- Kutir Jyoti and LT Domestic
- LT & HT Commercial,
- LT & HT Industry
- Public Street Lighting
- Public Water Works
- Agriculture consumers.

LT Domestic category is the largest consumer category and comprises around 60% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, DDUGJY and Saubhagya scheme. The sales as projected for the whole year; actual category-wise energy sales for six months as compared to the energy sales approved by the Hon'ble Commission for FY 2022-23 is given in the Table below:

**Table 6.1: Category-wise Energy Sales (MU)**

Sl. No	Particulars	Approved in ARR Order	Six months actual	Revised Projection
<b>A</b>	<b>LT Supply</b>			
1	Kutir Jyoti	4.23	1.98	3.96
2	Domestic	470.70	265.47	552.18
3	Commercial LT	65.16	32.47	64.94
4	Public Lighting	3.69	2.16	5.67
5	PWW	1.29	0.69	1.38

Sl. No	Particulars	Approved in ARR Order	Six months actual	Revised Projection
6	Irrigation and Agriculture	0.00	0.00	1.22
7	Cottage and Small Industries	22.95	0.61	20.76
	<b>Total LT</b>	<b>568.03</b>	<b>313.76</b>	<b>650.11</b>
<b>B</b>	<b>HT Supply</b>			
1	Commercial HT	21.97	10.86	21.72
2	PWW	24.66	13.17	26.34
3	Irrigation and Agriculture	0.75	0.40	0.80
4	Medium Industries	4.62	2.36	4.72
5	Large Industries	10.66	4.64	9.28
6	Bulk Supply	93.98	48.59	101.07
	<b>Total HT</b>	<b>146.98</b>	<b>80.02</b>	<b>163.93</b>
	<b>Grand Total (LT &amp; HT)</b>	<b>677.13</b>	<b>393.78</b>	<b>814.03</b>

MSPDCL requests the Commission to approve the revised sales projections for FY 2022-23.

### Commission Analysis:

The energy projections for FY 2022-23 furnished now is provisionally accepted at this level itself, since, it is almost at the fag-end of the year of 2022-23 now, we may even await the actual sales figures and hence Commission makes no change in the sales projected and approves with an expectation of reaching the energy projection submitted for FY 2022-23 as the growth trend is very much is LT category over tariff Order sales figures.

### 6.3. Energy Balance and Transmission & Distribution Loss

#### Petitioner's Submission

The computation of revised Transmission & Distribution losses for FY 2022-23 is shown in the Table below:

**Table 6.2: Transmission and Distribution Losses**

Sl. No	Particulars	Unit	Approved in ARR Order
1	Own Generation	MU	0.00
2	Power purchase from CGS	MU	1206.98
3	Add: UI Over drawl	MU	13.20
4	Add: IEX purchases	MU	74.56
5	Add: Returned Banking Energy	MU	137.41
6	Less: IEX sales	MU	110.43
7	Less: Banking mode sales	MU	136.37
<b>8</b>	<b>Gross Energy handled at NER</b>	<b>MU</b>	<b>1185.35</b>
9	Pool Losses	%	2.36%
10	Energy Losses at NER	MU	27.97

Sl. No	Particulars	Unit	Approved in ARR Order
11	<b>Net Energy available at NER after losses</b>	<b>MU</b>	1157.37
12	Less: UI Under drawl	MU	11.76
13	<b>Gross Energy handled at State Periphery</b>	<b>MU</b>	1145.61
14	Total Sales (LT+HT)	MU	814.03
15	Transmission and Distribution loss	MU	331.57
16	<b>Transmission and Distribution loss</b>	<b>%</b>	<b>28.9%</b>

The projected T&D Losses of 28.9% is expected to be achieved by MSPDCL in FY 2022-23 against the approved figure of 29.00% approved by Hon'ble Commission in its ARR order.

**Table 6.3: Transmission and Distribution Losses for APR of FY 2022-23**

Particulars	Approved in ARR Order	Revised Projection
Distribution Loss	29.00%	28.90%

It is submitted that energy availability for FY 2022-23 has been computed based on the actual Power purchase. Further, the transmission licensee, MSPCL operates the 33kV network which is the input point of the distribution network. It may to be noted that MSPDCL network periphery included only 11KV system and below whereas 33 KV and above transmission network falls under the MSPCL network. Therefore, segregating the MSPDCL distribution losses and MSPCL network losses, in absence of proper metering arrangements is not possible. Further, the Commission has stated that w.e.f. 01.02.2014, MSPDCL shall be responsible for distribution losses. In absence of an accurate figure of losses for 33 kV and above network, the Commission had calculated the losses without subtracting the intra state transmission losses (@ 8.5% in the ARR order) which led to distribution losses of 20.40% and overall T&D losses of 28.90%. Because of huge differences in the figures of intra state transmission losses of claimed and approved as well as year wise difference, we have shown the combined T&D losses here.

The quantum of distribution losses is primarily due to the higher LT line lengths and the hilly / complex terrain of Manipur State. The long LT distribution lines and distribution at 11 kV are leading to higher distribution losses in the state. In the recent past, due to various initiatives in rural electrification, significant progress was made by MSPDCL in addition to the rural consumers. However, it is pertinent to note that the new consumer

addition happened in most remote areas by extending the distribution network of MSPDCL. Due to smaller load and low consumption level, technical line losses would be quite high in those areas. MSPDCL is trying its best to serve them continuously and maintain these systems with its workforce efficiently. With the present state of complex terrain, long LT distribution lines, scatter LT domestic consumers, the actual LT distribution losses in Manipur are higher than the Commission approved distribution losses as given in its ARR order. Further, MSPDCL is in the process of expanding the coverage of prepaid meters to reduce unauthorized usage of electricity and the T&D losses. As the coverage of prepaid meters increased in the state in the future years, the T&D losses gradually improved.

**Table 6.4: Energy balance (MU) for APR FY 2022-23**

Sl. No	Particulars	Unit	Approved in ARR order	Revised Projection
1	Energy Sales	MU	724.68	814.03
2	T&D Loss	%	20.50%	28.94%
3	Energy Requirement at T&D boundary	MU	988.81	1145.61
4	Inter-State Transmission losses	%	6.20%	
5	Energy Requirement at State periphery	MU	988.81	1145.61
6	Inter-State Transmission Losses	%	2.54%	2.36%
7	Total Energy Requirement	MU	1014.58	1173.30
8	Total Energy Available from Long Term Sources	MU	1022.01	1206.98
9	Net Surplus / (Deficit) at State Periphery	MU	7.41	34.49

Based on the projected sales to consumers, projected distribution loss, interstate (as per average loss data from NERLDC) and intra state losses (as approved), projected power purchase and the energy balance is calculated and the surplus power available for banking / surplus sale is estimated and MSPDCL request the Hon. Commission to approve the same.

#### **Commission analysis**

The loss level now projected by the Licensee is on the higher side at 28.94% as compared to the Tariff Order approved value of 26.70%. This is showing a downward trend rather than achieving a progressive trend in energy handling. In fact, the T&D losses now projected are far higher than what has been achieved in FY2021-22 figures of 24.38% considered by the Commission. Hence the projection now made is not acceptable as there is no improvement shown. Therefore, the figures indicated in the Tariff Order Dt

23.03.2022 will still holds good and there don't need any modification to the T&D Losses in the Annual performance review for FY 2022-23.

The Commission unwillingly wants to indicate revised losses and the Energy Balance statement in the table below because of the inferior performance trend indicated in the petition, which is unexpected from the licensee.

S No	Particulars (FY 2022-23)	Unit	Tariff Order 23/03/2022	APR (MSPDCL)	Actuals (Apprvd)
<b>A</b>	<b>Distribution Energy Requirement</b>				
1	Energy for Retail Sales	MU	724.68	814.03	814.03
2	<b>Distribution loss</b>	%	<b>20.50%</b>	<b>22.93%</b>	<b>22.54%</b>
3	Distribution loss	MU	186.90	242.23	236.86
4	<b>Energy need at Distribution Input</b>	<b>MU</b>	<b>911.58</b>	<b>1056.26</b>	<b>1050.89</b>
<b>B</b>	<b>Energy Availability (2022-23)</b>				
5	Power Purchase from CGS & Others	MU	1022.01	1206.98	1206.98
6	Add: IEX Purchases	MU	30.45	74.56	74.56
7	Add: UI Over drawl	MU		13.20	13.20
8	Add: Banking units Returns	MU	80.00	137.41	137.41
	Less: IEX Sales (Gross)			(110.43)	
	Less: Banking Mode sales (Gross)			(136.37)	
9	<b>Gross Energy handled at NER Level</b>	<b>MU</b>	<b>1132.46</b>	<b>1185.35</b>	<b>1432.15</b>
10	<b>Less: External (pooled) Losses</b>	<b>%</b>	<b>2.54%</b>	<b>2.36%</b>	<b>2.36%</b>
11	Less: External Energy pooled Losses	MU	28.76	27.97	33.80
12	<b>Energy after External Losses (6-8)</b>	<b>MU</b>	<b>1103.70</b>	<b>1157.38</b>	<b>1398.35</b>
13	Less: IEX Sales (Net) in FY 2022-23	MU	-80.00		-110.43
14	Less: Banking Mode sales (Net)	MU	-35.00		-136.37
15	Less: UI Under drawl	MU		(11.76)	-11.76
16	Add: Own Generation (Net)	MU			
17	<b>Available Energy at State periphery</b>	<b>MU</b>	<b>988.70</b>	<b>1145.62</b>	<b>1139.79</b>
18	<b>Intra-State Transmission Loss</b>	<b>%</b>	<b>7.80%</b>	<b>7.80%</b>	<b>7.80%</b>
19	Intra-State Transmission Loss	MU	77.12	89.36	88.90
20	<b>Energy Available at Distribution input</b>	<b>MU</b>	<b>911.58</b>	<b>1056.26</b>	<b>1050.89</b>
	<b>Overall Losses (T &amp; D) - MU</b>		264.02	331.59	325.76
	<b>Overall Losses (T &amp; D) - %</b>		<b>26.70%</b>	<b>28.94%</b>	<b>28.58%</b>

With regard to the loss reduction, the commission wants the circle wise monthly sale details each month for monitoring and in this regard the following directive is being given in this aspect:

**“The MSPDCL shall invariably submit the details to the Commission on 15<sup>th</sup> of each month following the month in which the quantum of energy input/received by each**

circle and also the quantum of energy sold in that month by each circle separately for each of the twelve (12) months promptly starting from April to March without fail. The information so furnished by the licensee would form the basis to arrive at the Distribution losses incurred by the MSPDCL in the entire year for truing-up purpose in future. Besides, the Licensee shall also submit the details of the quantity of Outside state sales achieved in each month starting from April to March for record along with the Circle wise sales information.”

#### 6.4. Energy Purchase and procurement cost

##### Petitioner’s Submission

MSPDCL receives allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC- Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The proposed power purchase for FY 2022-23 has been projected in the MYT order based on the annual allocation of different power projects. MSPDCL is required to purchase the contracted quantum of power from different sources as projected in MYT order. Due to dam related problem in Kopili HEP, no power was available from the project.

However, the actual power purchase quantum is likely to vary based on the energy availability, hydrology, operational conditions of the plants etc. While estimating the power purchase for FY 2022-23, actual power purchase during the first six months is considered along with the availability of plants in next six months. Further, based on the actual power procurement for FY 2021-22, year on year growth has been considered based on the planned allocation for projecting the power purchase for current financial year. Accordingly, the revised energy purchase has been proposed. The revised energy purchase for FY 2022-23 is detailed in the Table below:

**Table 6.5: Power Purchase Cost and Quantum for APR FY 2022-23**

Sl. No	Particulars	Approved in ARR		Revised Projections	
		Energy Purchased / generated (ex-bus) (MU)	Total Cost (Rs. Crore)	Energy Purchased / generated (ex-bus) ( MU)	Total Cost (Rs. Crore)
<b>A</b>	<b>CGS - NEEPCO</b>				
1	Kopili - I HE	1.00	0.44	-	-
2	Kopili - II HE	3.00	1.46	-	-



Sl. No	Particulars	Approved in ARR		Revised Projections	
		Energy Purchased / generated (ex-bus) (MU)	Total Cost (Rs. Crore)	Energy Purchased / generated (ex-bus) ( MU)	Total Cost (Rs. Crore)
3	Khandong HE	15.00	2.62	-	-
4	Ranganandi HE Project	110.00	24.64	107.14	22.33
5	Doyang HE Project	15.00	10.61	14.23	8.63
6	Assam GBPP	105.00	43.73	142.24	87.38
7	Agartala GTPP	70.00	31.71	68.72	40.09
	<b>Sub-total</b>	<b>319.00</b>	<b>66.24</b>	<b>332.32</b>	<b>158.43</b>
<b>B</b>	<b>CGS - NHPC</b>				
1	Loktak HEP	180.00	15.76	127.58	42.82
2	Loktak Free power	62.00		63.26	
	<b>Sub-total</b>	<b>242.00</b>	<b>15.76</b>	<b>190.83</b>	<b>42.82</b>
<b>C</b>	<b>Other</b>				
1	Baramura GBPP U-IV& V	32.00	19.49	11.18	5.13
2	OTPC Palatana Unit-I	225.00	98.07	399.4	131.3
	<b>Sub-total</b>	<b>257.00</b>	<b>190.14</b>	<b>410.58</b>	<b>136.43</b>
<b>D</b>	<b>New Plants</b>				
1	NTPC Bongaigaon	158.00	168.11	232.83	149.91
2	Pare HEP	40.00	20.02	40.41	20.21
	<b>Sub-total</b>		<b>489.16</b>	<b>273.24</b>	<b>170.12</b>
<b>E</b>	<b>Short-term power purchase</b>				
1	IEX Purchase	30.45	8.53	74.56	26.10
2	IEX Sales	-35.00			
	<b>Sub-total</b>			<b>74.56</b>	<b>26.10</b>
<b>F</b>	<b>UI Over drawl</b>			<b>13.01</b>	<b>3.38</b>
<b>G</b>	<b>Banking purchase</b>	<b>80.00</b>			
<b>H</b>	<b>Supplementary Bills</b>		<b>40.00</b>		
<b>I</b>	<b>REC</b>		<b>32.10</b>		
	<b>TOTAL POWER PURCHASE COST</b>	<b>1017.46</b>	<b>569.79</b>	<b>1294.74</b>	<b>536.70</b>

MSPDCL, therefore, requests the Hon'ble Commission to approve the revised power purchase costs for FY 2022-23.

#### Commission Analysis:

The Commission approves the energy procurement and its associated cost as per the revised projections for FY 2022-23, without any change since the financial year is at the fag end and any modifications will not be worth to carry out for any corrections. But the depiction of IEX Sales and Banking Sale before pooled losses is not felt right and hence modified. The details of Tariff Order approved and the APR values in comparison to what approved

now by Commission with slight modification is tabulated below:

**Table 6.6: Power Purchase Cost and Quantum for APR FY 2022-23 by Commission**

Sl. No.	Source (FY 2022-23)	Tariff Order 23.3.2022			APR Approved			Commission Approved		
		Energy (MU)	Total Cost (Rs Cr)	Avg rate (Rs/kWh)	Energy (MU)	Total Cost (Rs Cr)	Avg rate (Rs/kWh)	Energy (MU)	Total Cost (Rs Cr)	Avg rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>									
1	Kopili - I HE	1.00	0.44	4.40	-	-		-	-	
2	Kopili - II HE	3.00	1.46	4.87	-	-		-	-	
3	Khandong HE	15.00	2.63	1.75	-	-		-	-	
4	Ranganandi HE Project	110.00	24.64	2.24	107.13	22.33	2.08	107.13	22.33	2.08
5	Doyang HE Project	15.00	10.61	7.07	14.23	8.63	6.06	14.23	8.63	6.06
6	Assam GBPP	105.00	43.73	4.16	142.24	87.38	6.14	142.24	87.38	6.14
7	Agartala GTPP I & II	70.00	31.71	4.53	68.72	40.09	5.83	68.72	40.09	5.83
	<b>Sub-total</b>	<b>319.00</b>	<b>115.22</b>	<b>3.61</b>	<b>332.32</b>	<b>158.43</b>	<b>4.77</b>	<b>332.32</b>	<b>158.43</b>	<b>4.77</b>
<b>B</b>	<b>CGS - NHPC</b>									
1	Loktak HEP	180.00	66.24	3.68	127.58	42.82	3.36	127.58	42.82	3.36
2	Loktak Free power	62.00	0.00	0.00	63.26	-	-	63.26	-	-
	<b>Sub-total</b>	<b>242.00</b>	<b>66.24</b>	<b>2.74</b>	<b>190.84</b>	<b>42.82</b>	<b>2.24</b>	<b>190.84</b>	<b>42.82</b>	<b>2.24</b>
<b>C</b>	<b>Other</b>									
1	Baramura GBPP Unit IV and V	32.00	19.50	6.09	11.18	5.13	4.59	11.18	5.13	4.59
2	OTPC Pallatana Unit I & II	225.00	98.07	4.36	399.40	131.30	3.29	399.40	131.30	3.29
	<b>Sub-total</b>	<b>257.00</b>	<b>117.57</b>	<b>4.57</b>	<b>410.58</b>	<b>136.43</b>	<b>3.32</b>	<b>410.58</b>	<b>136.43</b>	<b>3.32</b>
<b>D</b>	<b>New Plants</b>									
1	NTPC Bongaigaon- 1,2&3	158.00	168.11	10.64	232.83	149.91	6.44	232.83	149.91	6.44
2	Para HEP	40.00	20.02	5.01	40.41	20.21	5.00	40.41	20.21	5.00
3	Renewable – Solar	0.75	0.34	4.53	-	-		-	-	
4	Renewable – Non Solar	5.26	1.67	3.17	-	-		-	-	
	<b>Sub-total</b>	<b>204.01</b>	<b>190.14</b>	<b>23.35</b>	<b>273.24</b>	<b>170.12</b>	<b>6.23</b>	<b>273.24</b>	<b>170.12</b>	<b>6.23</b>
	<b>CGS Energy Total</b>	<b>1022.01</b>	<b>489.16</b>	<b>4.79</b>	<b>1206.98</b>	<b>507.80</b>	<b>4.21</b>	<b>1206.98</b>	<b>507.80</b>	<b>4.21</b>
<b>E</b>	<b>Short-term power purchase</b>									
1	IEX Purchase	30.45	8.53	2.80	74.56	26.10	3.50	74.56	26.10	3.50
2	UI Over drawl	-	-	-	13.20	2.80	2.12	13.20	2.80	2.12
3	Banking - Returned energy	80.00	-	-	137.41	-	-	137.41	-	-
4	Banking mode Sales				-136.37			0.0		
5	IEX Sales				-110.43			0.0		
	<b>CGS Energy &amp; Others</b>	<b>1,132.46</b>	<b>497.69</b>	<b>4.39</b>	<b>1185.35</b>	<b>536.70</b>	<b>4.53</b>	<b>1432.15</b>	<b>536.70</b>	<b>3.75</b>
	<b>Inter-State Losses (%)</b>	<b>2.54%</b>			<b>2.36%</b>			<b>2.36%</b>		
	<b>Inter-State Losses - MU</b>	<b>28.76</b>			<b>27.97</b>			<b>33.80</b>		
	<b>Energy at state Periphery</b>	<b>1,103.70</b>	<b>497.69</b>	<b>4.51</b>	<b>1157.37</b>	<b>536.70</b>	<b>4.64</b>	<b>1398.35</b>	<b>536.70</b>	<b>3.84</b>
<b>F</b>	<b>Banking mode Sales (Net)</b>	<b>-80.00</b>						<b>-136.37</b>		
<b>G</b>	<b>IEX Sales (Net)</b>	<b>-35.00</b>						<b>-110.43</b>		
<b>H</b>	<b>UI Underdrawl</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-11.76</b>			<b>-11.76</b>		
<b>I</b>	<b>Supplementary bills</b>	<b>-</b>	<b>40.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>REC Certificates</b>		<b>32.10</b>			<b>-</b>			<b>-</b>	
	<b>Late Payment surcharge</b>		<b>0</b>							
	<b>Grand Total</b>	<b>988.70</b>	<b>569.79</b>	<b>5.76</b>	<b>1145.61</b>	<b>536.70</b>	<b>4.68</b>	<b>1139.79</b>	<b>536.70</b>	<b>4.71</b>

## 6.5. Transmission Charges

### Petitioner's Submission

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC charges.

The summary of transmission charges approved by the Commission in ARR order and the revised projections for FY 2022-23 is as follows:

**Table 6.7: Transmission charges for APR FY 2022-23**

Sl. No	Particulars	Approved in ARR Order	Revised Projection
1	PGCIL Charges	93.80	104.20
2	MSPCL Charges	93.86	84.83
3	SLDC Charges	0.00	0.87
4	NERLDC Charges	0.71	0.71
	Total	188.37	190.60

The transmission charges are uncontrollable in nature as the same are levied based on approved cost and orders of CERC and JERC as applicable for inter-state and intra state transmission respectively.

As such, MSPDCL requests the Hon'ble Commission to approve the Revised transmission cost.

### Commission Analysis:

Since the variation proposed is not much compared to the Tariff order figures, the Commission approves all the cost proposed **amounting to Rs.104.91Cr**s excluding the **MSPCL charges amount of Rs.84.83Cr**s and **SLDC charges of Rs.0.87Cr**s. The MSPCL charges are not being paid by MSPDCL, for the basic reason of non-existence of billing mechanism between both the entities since their formation into corporate entities and same thing is also indicated in the True-Up orders issued for earlier years.

## 6.6. Operation & Maintenance Expenses

### Petitioner's Submission

The Operation and Maintenance (O&M) expenses comprises of Employee Expenses, Repair and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses. In the FY 2022-23 based on six months data, revised projection of the O&M expenses as follows:

**Table 6.8: O&M Expenses for APR FY 2022-23**

Sl. No	Particulars	Approved in ARR Order	Revised Projection
1	Employee Expenses	77.15	72.02
2	R&M Expenses	8.25	11.78
3	A&G Expenses	6.12	9.66
	Total	91.52	93.46

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of Rs. 93.46 Crore for FY 2022-23.

**Commission Analysis:****Table 6.9: O&M Expenses approved by the Commission for FY2022-23**

Sl. No.	Details of O&M Expenses	Now Approved (Rs.Crs)
1.	Employee Cost	72.02
2.	R&M Expenses	11.78
3.	A&G Expenses	6.24
4.	<b>Total O&amp;M Expenses</b>	<b>90.04</b>

Thus, the total O&M Expenses provisionally approved for FY2022-23 at Rs.90.04Crs after Commission review.

**6.7. Interest on Working Capital****Petitioner's submission**

The interest on working capital is calculated as interest incurred on operation and maintenance expenses for one month, power purchase cost for one month, Receivables equivalent to one (1) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs as per clause 29.4 of the JERC (Multi Year Tariff) Regulations 2014.

The computation of normative Interest on Working Capital (IoWC) for MSPDCL for FY 2022-23, is shown in the Table below:

**Table 6.10: IoWC for APR FY 2022-23**

Sl. No	Particulars	Approved in ARR Order	Revised Projections
1	O & M Expenses one month	Disallowed	7.79
2	Maintenance of spares @ 1% of GFA Escalated by 6%		27.89
3	Receivable equivalent to one month		42.96
4	<b>Less: Consumer Security Deposit</b>		
5	<b>Net WC requirement</b>		78.63
6	SBAR rate as on 01.04.2018		12.30%
7	<b>Interest of Working Capital</b>		9.67

MSPDCL requests the Hon'ble Commission to approve the IoWC of Rs.9.67 Crore for FY 2022- 23.

**Commission's Analysis**

As seen from the submission, there was no reference of actual need for drawal of short-term loans during the year for working capital needs. The very purpose of allowing the interest on working capital is to reimburse the short-term loan interest cost involved for running the day to day business of the utility. It is a known fact that MSPDCL is dependent solely upon the Government of Manipur for all its day to day funding in the form of Grant-in-Aid (revenue purpose) towards meeting salaries and other expenses. Therefore, allowing interest on working capital on a notional basis would only burden the retail supply consumers for no reason and disallowing it has no actual financial impact on MSPDCL. Therefore, it will have to be disallowed in the ARR computation by the Commission for not having actually availed Short-term loans as the general public too have expressed in the public hearing for disallowing this expenditure perpetually. More so, the MSPDCL is having majority of consumers are having pre-paid meter and thereby there is no delay in revenue realization and in fact revenue is collected in advance and hence there is no need for borrowing short-term loans for working capital needs.

**Thus, the Commission fully disapproves interest on working capital claim for FY 2022-23 so proposed by MSPDCL.**

**6.8. Gross Fixed Assets and Depreciation****Petitioner's Submission**

The depreciation on the GFA is calculated as per the JERC (MYT) Regulations 2014. As, the assets are funded by 90% grant from the Central Government the net depreciation booked shall be 10% of the calculated depreciation.

For calculating the GFA the figures of the base year have been used, the capital expenditure for a particular year has been capitalized in the next year. On the basis of the projected GFA, the additional depreciation has been calculated. The additional depreciation is on the new assets added to the GFA. The depreciation on the older assets has been calculated as per the accounts and the additional depreciation is added

to the same for finding out the final value of the depreciation charged for the Financial year. The depreciation for FY2022-23 is shown as below:

**Table 6.11: GFA for APR FY 2022-23**

Sl. No	Particulars	Opening balance as on 31.03.2022	Additions	Closing balance as on 31.03.2023	Addl. Depreciation for FY 2022-23 @10% of gross depreciation
1	Plant & Machinery	2,376.18	149.25	2,525.43	0.79
2	Building	64.70	4.06	68.76	0.01
3	Furniture & fittings	1.32	0.08	1.40	0.00
4	Computer	9.75	0.61	10.36	0.01
5	Heavy Equipment	0.88	0.06	0.94	0.00
6	Heavy Vehicle	0.88	0.06	0.94	0.00
7	Office Equipment	0.09	0.01	0.09	0.00
8	Vehicle	5.77	0.36	6.13	0.00
9	Land	0.35	0.02	0.38	-
10	Software	15.47	0.97	16.44	0.01
	<b>TOTAL</b>	<b>2475.38</b>	<b>155.48</b>	<b>2,630.86</b>	<b>0.82</b>

The additional depreciation on the addition for FY 2022-23 has been added to the booked depreciation for FY 2021-22 to arrive at the depreciation for FY 2022-23

**Table 6.12: Depreciation for APR FY 2022-23**

Particulars	Approved in ARR Order	Revised Projections
Depreciation	1.84	17.08

#### Commission Analysis:

As per the content of this filing, it is construed that the funds utilized for such creation are fully spent from grants of government only. Therefore, the additions to GFA by transfer amounting to Rs.155.48Crs as shown for the year is not eligible for depreciation under the regulatory accounting ambit.

The depreciation figures now adopted appears quiet arbitrarily for the sake of ARR filing and not with due diligence. How the depreciation amount for 2022-23 has risen to Rs.17.08Crs was properly elaborated in the filing. The depreciation amount is now approved by the Commission for FY 2022-23 without considering the capitalised addition made with the usage of govt subsidy.

**Table 6.13: - Depreciation for FY 2022-23 by the Commission**

Sl.No.	Particulars (2022-23)	Commission Approved
1	Opening GFA	756.50
2	Addition during the Year	0
3	Retirement	0
4	Closing GFA	756.50
5	Average GFA	756.50
6	Average Rate of Depreciation	2.42%
7	Depreciation	18.31
8	<b>10% of Gross Depreciation</b>	<b>1.83</b>

The Commission approves the APR review based depreciation of **Rs.1.83 Crs** calculated at 10% of the Regulatory accounting based allowable depreciation for FY 2022-23 provisionally and the same will be correlated with the Audited figures. The actual depreciation allowable will be decided later upon submission of Audited Accounts up to FY 2022-23.

#### **6.9. Interest on Loan**

##### **Petitioner's Submission**

The major part of capital expenditure undertaken by MSPDCL is funded by the Central / State Government's grants and consumer contribution. However, in addition to these sources of funds, MSPDCL has also taken a significant amount of loan from REC for RAPDRP-B Project and RGGVY project. The repayment of loans during the year has been considered as per actual repayment, and the repayment has been considered proportionately based on the opening loan balance.

**Table 6.14: GFA for APR FY 2022-23**

Particulars	Approved in ARR Order	Revised Projections
Interest & Finance Charges	17.62	6.61

The details of loans with the computation of Interest on loan are shown in the Table below:

**Table 6.15: Loan details for APR FY 2022-23**

Sl. No	Particulars	Loan 1 (PFC R- APDRP- A)	Loan 2 (PFC R- APDRP- B)	Loan 3 (REC R- APDRP- B)	DDUJGY	Prepaid Meter loan (Hill & Valley) (REC)	SLTTL	SLTTL (REC)
1	Opening Loan	14.35	353.74	23.93	16.96	63.09	55.7	55.7
2	Addition					27.3		
3	Repayment							
4	Closing Loan	14.35	353.74	23.93	16.96	90.39	55.7	55.7
5	Average Loan							
6	Rate of	9%	9%	12%	11%	10%	10%	10%
7	Interest &			1.35		4.74	2.7	2.66

**Commission Analysis:**

If any loans that pertains to High Mast Lights will not be allowed, as they pertain to MAHUD department for Street Lights Purpose. But, it is noticed that this loan amount of Rs.6.4611Cr is still being continued, besides fresh loan amount of Rs.4.55Cr is obtained during the making the total liability to Rs.11.0144Cr.

**The Commission has already directed the Licensee to transfer it to MAHUD deptt, but no suitable action appears to have taken despite Commission pointing out.**

However, the interest amount now proposed by MSPDCL for Rs.6.61Cr is not approved after APR review for FY 2022-23 as these charges are being capitalised. If allowed it will be double counted and burdening the consumers is unfair. The actuals incurred will be considered at the time of truing up of the expenditure of FY 2022-23, upon their submission of audited accounts statement.

**6.10. Return on Equity****Petitioner's Submission**

As per audited accounts, the RoE is computed on paid up capital of Rs. 10.05 Crore at the rate of 15.50% as stated in clause 26.1 of JERC (Multi Year Tariff) regulations 2014.

**Table 6.16: RoE for APR FY 2022-23**



Sl. No	Particulars	Approved in ARR Order	Revised Projections
1	Average Equity	10.05	10.05
2	RoE %	15.50%	15.50%
3	Return on Equity	1.56	1.56
4	MAT Rate applicable	0.00%	0.00%
	<b>Net RoE (Grossed up by MAT rate)</b>	<b>1.56</b>	<b>1.56</b>

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of Rs.1.56 Crore for FY 2022-23

#### Commission Analysis:

The Commission provisionally approves the return on equity at Rs.1.56 Crs without considering the Income tax component and the same will be admitted depends upon the incidence of tax on actual basis duly correlating with Audited Annual Accounts.

#### 6.11. Non-Tariff income

##### Petitioner's Submission

The actual Non-tariff income as compared to the approved figure in ARR of FY 2022-23 is as follows:

**Table 6.17: NTI for APR FY 2022-23**

Particulars	Approved in ARR Order	Revised Projections
Non-tariff Income	8.00	6.08

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of Rs. 6.08 Crore for FY 2022-23.

##### Commission's analysis

Keeping in view of the huge pending dues amount still to be recovered, the projected Non-Tariff Income towards recovery of revenue dues is not adequate and it shall be still at a higher level above Rs.6.08 Crs than now projected. The projection of NTI shall be based on the outstanding dues and the need for enhancing the revenue collections. Therefore, the **Commission prefers to retain the NTI amount at Rs.8.00 Crs** as was already approved in Tariff order for FY 2022-23 as the licensee may not be able to make any abnormal improvement at this juncture of financial year ending. **The projection should have been more accurate at the time of initial filing itself.**

## 6.12. Aggregate Revenue Requirement

### Petitioner's Submission

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2022-23 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2022-23, is given in the Table below:

**Table 6.18: Aggregate Revenue Requirement for APR of FY2022-23 (Rs. Crore)**

Sl. No	Particulars	Approved in ARR Order	Revised Projections
1	Cost of power purchase	569.79	536.7
2	Transmission charges	188.37	190.61
3	O&M Expenses	91.52	93.46
	<i>Employee Expenses</i>	77.15	72.02
	<i>A&amp;G Expenses</i>	6.12	9.66
	<i>R&amp;M Expenses</i>	8.25	11.78
4	Depreciation	1.84	16.26
5	Interest on Loan	17.62	6.61
6	Interest on Working Capital	0	9.67
	<b>Total Cost</b>	<b>868.51</b>	<b>853.31</b>
7	Add: RoE	1.56	1.56
8	Add: Income Tax	0	0
	<b>Total</b>	<b>870.07</b>	<b>854.87</b>
9	Less: Non-tariff Income	8	6.08
10	Less: Efficiency Gains	0	0
	<b>Aggregate Revenue Requirement (ARR)</b>	<b>862.07</b>	<b>848.79</b>
11	Less: Revenue from sale of surplus power	7.93	61.18
	<b>Net ARR</b>	<b>854.14</b>	<b>787.61</b>

### Commission Analysis:

The details of the APR based ARR approved by the Commission after thorough scrutiny of all the cost elements for FY 2022-23 is as follows:

**Table 6.19: Aggregate Revenue Requirement for FY 2022-23 (Rs. Crore)**

Sl.No.	Energy Particulars (FY2022-23)	MU
1	<b>Gross Energy Purchases</b>	<b>1432.15</b>
2	Less: Inter State Transmission Losses @ 2.36%	33.80
3	Less: Outside State Sales& Banking Sale	246.80
	Less: UI Under Drawl	11.76
4	Less: State Transmission Losses @ 7.80%	88.90
5	Less: Distribution Losses @ 22.54%	236.86
6	<b>Retail Sale of Power</b>	<b>814.03</b>

	Approved Expenditure (FY2022-23)	Rs.Crs
1	Cost of power purchase	536.70
2	Inter-State Transmission charges	104.20
3	Intra-state Transmission charges	0.00
4	NERLDC Charges	0.71
5	<b>O&amp;M Expenses</b>	<b>90.04</b>
	<i>a) Employee Expenses</i>	72.02
	<i>b) R&amp;M Expense</i>	11.78
	<i>c) A&amp;G Expense</i>	6.24
6	Depreciation	1.83
7	Interest on Loan (excl. High Mast Loan)	0.00
8	Interest on Working Capital	0.00
9	Bad Debt	0.00
10	Return on Equity	1.56
	<b>Gross ARR - approved (A)</b>	<b>735.04</b>
	<b>Deductions</b>	
11	Less: Non-Tariff Income	8.00
12	Less: Efficiency Gains	0.00
	<b>Total deductions (B)</b>	<b>8.00</b>
13	<b>Aggregate Revenue Requirement (A-B)</b>	<b>727.04</b>

### 6.13. Revenue Gap

#### Petitioner's Submission

The Revenue Gap of MSPDCL for FY 2022-23 as against the Revenue Gap approved by the Hon'ble Commission in the ARR Order for FY 2021-22 is shown in the Table below:

**Table 6.20: Revenue Gap for APR of FY2022-23 (Rs. Crore)**

Sl. No	Particulars	Revised Projections
1	Net ARR after considering outside sale income	<b>848.79</b>
2	Total Revenue from consumer tariff at existing rates	515.51
3	Revenue Gap before Govt. Subsidy (1-2)	333.28
4	State Government Revenue Subsidy	290.38
5	<b>Revenue Gap / (Surplus) (4-3)</b>	<b>42.90</b>

As can be seen from the above Table, the Revenue Gap in APR of FY 2022-23 will be largely met by **State Government subsidy of Rs 290.38 Crore**. Based on the revised projections mentioned in the table above, MSPDCL requests the Hon'ble Commission to pass the approve **the revenue gap of INR 42.90 crores**.

**Commission Analysis:**

The above revenue gap **was not properly depicted** as the income from Outside State sales amount of Rs.61.18Cr was omitted in the calculation made there by the Revenue Gap was inflated unnecessarily else there was in reality revenue surplus exists at the time of APR filing itself. The Revenue Gap table by MSPDCL should have been as follows:

Sl. No	Particulars (As per APR Filing)	Revised Projections
1	Net ARR after considering outside sale income	<b>848.79</b>
2	Total Revenue from consumer tariff at existing rates	515.51
3	Revenue from Outside State Sales	<b>61.18</b>
4	Revenue Gap before Govt. Subsidy (1-2-3)	272.10
4	State Government Revenue Subsidy	290.38
5	<b>Revenue Surplus (4-3)</b>	<b>18.28</b>

Besides, there was revenue under assessment for FY 2022-23. If that under assessment too was added, then the revenue surplus would be higher by Rs.92.77Cr in addition to Rs.18.28Cr shown above totaling to Rs.111.05Cr in factuality.

In the revenue assessment, it is observed that licensee is doing certain rudimental omissions in the calculations leading to under estimation of the revenue yield.

The causes of variation are as follows:

- The Fixed Charges are worked out only for 1 month, and omitted 11 months Fixed charges altogether for both LT & HT category consumers.
- Non-adoption of the 0.9 Power Factor conversion for all HT category consumers (both in the case of Fixed & energy charges) since tariff rates are expressed in kVA and kVAh, while the contracted loads are expressed in kW or MW, which leads to undermining all the HT category revenue under Fixed as well as Energy charges components. (Supply code stated that contracted load of above 55.56KVA or Contracted Load above 50KW falls under HT category upon availing supply at 400V). Thereby the ration for conversion can be inferred as 0.90 only.

Accordingly, when the revenue for FY 2022-23 was reassessed by the

Commission with the available data, it works out to Rs.608.2791Crs for the sale of 813.61MU during FY2022-23 instead of Rs.515.51Crs as mentioned in the filing. Thus, the difference of **Rs.92.7691Crs** has erroneously got reflected in the revenue deficit instead of enhancing the revenue billing amount.

The detailed revenue summary of category-wise Commission based revenue in comparison of revenue assessed by MSPDCL for FY 2022-23 is tabulated below for reference.

**Table 6.21: Reported Revenue compare with Commission based revenue**

Sl. No.	Revenue particulars for FY 2022-23	Revenue reported for 2022-23		Commission based Revenue	Variance with Actuals
	1	2	3	4	5=(4-3)
<b>A</b>	<b>LT Supply</b>	<b>MU</b>	<b>Rs.Crs</b>	<b>Rs.Crs</b>	<b>Rs.Crs</b>
1	Kutir Jyoti	3.96	0.87	1.26	0.40
2	<b>Domestic</b>	552.18	297.12	348.16	<b>51.04</b>
3	<b>Commercial LT</b>	64.94	46.68	55.23	<b>8.54</b>
4	<b>Public Lighting</b>	5.67	5.45	5.55	<b>0.10</b>
5	<b>Public Water Works</b>	1.38	1.36	1.41	<b>0.05</b>
6	Irrigation and Agriculture	0.80	0.37	0.39	0.02
7	Cottage and Small Industries	20.76	11.77	13.33	1.56
	<b>Total - LT category</b>	<b>649.69</b>	<b>363.61</b>	<b>425.33</b>	<b>61.72</b>
<b>B.</b>	<b>HT Supply</b>				
8	<b>Commercial HT</b>	21.72	19.61	25.15	<b>5.54</b>
9	<b>Public Water Works</b>	26.34	25.47	30.56	<b>5.09</b>
10	<b>Irrigation and Agriculture</b>	0.80	0.416	0.51	<b>0.09</b>
11	<b>Medium Industries</b>	4.72	3.82	4.84	<b>1.02</b>
12	<b>Large Industries</b>	9.28	8.58	11.13	<b>2.55</b>
13	<b>Bulk Supply</b>	101.07	94.00	110.76	<b>16.76</b>
	<b>Total - HT category</b>	<b>163.93</b>	<b>151.90</b>	<b>182.95</b>	<b>31.05</b>
	<b>Grand Total of (LT &amp; HT)</b>	<b>813.61</b>	<b>515.51</b>	<b>608.28</b>	<b>92.77</b>

Upon review all the cost element by the Commission for FY 2022-23 the final revenue gap is arrived at after considering the Government Subsidy amount as proposed by in the APR filing and there is no deficit but surplus is seen as indicated in the table below.

**Table 6.22: Revenue Gap status derived by the Commission for FY 2022-23**

Sl. No	Details of Revenue Gap (FY2022-23)	Amount Rs.Crs
1	Net Aggregate Revenue Requirement	727.04
2	Less: Total Retail sales Revenue ( <b>Derived</b> )	608.28
3	Less: Revenue from Outside State sales	61.18
4	<b>Revenue Gap before Govtt. subsidy</b>	<b>57.58</b>
5	State Government Revenue Subsidy (proposed)	290.38
6	<b>Revenue Surplus → (5-4) in Rs.Crs</b>	<b>232.80</b>

Now, it is hereby informed the MSPDCL that in future (from FY 2022-23 onwards), if the revenue billed is not matching with the revenue derived by the methodology followed by Commission, **then true-up will be done based on Commission derived revenue amount only and revenue gap/surplus will be decided accordingly.** *This decision is made keeping in view the similar situation noticed in FY 2021-22 also with an undermined revenue to the tune of Rs.120Crs, which is an alarming outcome notice by this Commission especially in the revenue assessment even in the approved audited accounts.*

However, the actual revenue surplus or deficit gap depends upon:

- (a) the amount of revenue that is going to be realized, which again depends upon;
- (b) different category wise sales-mix quantity of units actually sold including Outside state sales and it also revolves on;
- (c) amount of Government subsidy to be received by the end of the financial year FY 2022-23.
- (d) actual amount of REC Certificates procurement needed to comply with RPO obligation latest order issued by JERC in 2022.

Thus, the real revenue & financial surplus/gap occurring to MSPDCL would be known at a later date which will be dealt with suitably during true-up of the expenditure based on the finalized audited annual accounts statements for FY 2022-23.



## **7. ARR & Retail Tariff proposal for FY 2023-24 to FY 2027-28**

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### **7.1. Background**

The Hon'ble Commission came up with its Joint Electricity Regulatory Commission for Manipur and Mizoram (Multi Year Tariff) Regulations, 2014 applicable from 1st April 2015.

This section outlines the MYT petition of MSPDCL as per the JERC (Manipur and Mizoram) MYT Regulations, 2014 for the Second Control Period from FY 2023-24 to 2027-28 covering the following projections:

- Sales, No. of Consumers and Connected load
- Energy requirement and Energy balance
- Power purchase cost
- Multi-Year Aggregate Revenue Requirement from FY 2023-24 to 2027-28

MSPDCL is submitting its ARR and Tariff Petition for determination of Tariff and ARR for FY 2023-24 broadly on the basis of the principles outlined in MYT Tariff Regulations notified by JERC. MSPDCL has considered the past trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 2023-24 to FY 2027-28.

The following sections explain in detail the basis and forecasts of the following elements for FY 2023-24:

1. Category wise Energy Sales & Revenues at existing tariffs
2. T&D Losses and Energy Requirement
3. Determination of Aggregate Revenue Requirement by forecasting the following costs, other income & returns:
  - Power Purchase Cost
  - Employee Cost
  - Repairs & Maintenance Cost
  - Admin & General Cost
  - Capital Investment Plan
  - Interest Cost



- Depreciation
  - Return on Equity
  - Non-Tariff Income
4. Determination of Gap between Revenue & Costs and the arrangements to cover the revenue gap for the First year of the Second Control Period i.e. FY 2023-24 to FY 2027-28.
  5. Additional Revenue through the proposed Tariff Revision and the arrangements to cover the revenue gap for FY 2023-24.

## **7.2. Energy Sales**

**As per section 88.1 of MYT regulations 2014;** The Distribution Licensee shall submit a forecast of the expected sales of electricity to each tariff category/sub-category and to each tariff slab within such tariff category/sub-category to the Commission for approval along with the Business Plan, as specified in these Regulations.

**Also, as per section 88.3 of MYT regulations 2014;** The sales forecast shall be consistent with the load forecast prepared as part of the long-term power procurement plan submitted as a part of Business Plan and shall be based on past data and reasonable assumptions regarding the future.

### **7.2.1 Approach for Sales**

It has been observed from past experience that the historical trend method has proved to be a reasonably accurate and well accepted method for estimating the load, number of consumers and energy consumption. In light of the above, MSPDCL has estimated the above for various customer categories primarily based on the CAGR trends during past years. Wherever the trend has seemed unreasonable or unsustainable, the growth factors have been corrected by the company, to arrive at more realistic projections.

### **7.2.2 Summary for growth and projections**

The growth rates observed in the energy sold to each consumer category has been analysed for the purpose of sales projections for the Third Control Period FY 2023-24 to 2027-28. The analysis of the growth rate helps us understand the behavior of each category and hence forms the basis of forecasting the sales for each category.

### **7.2.3 Category-wise energy sold**

The Break-up of the sales and the CAGR growth rates for different periods (3 year, 2 year and year on year) thereof are as follows. CAGR has been computed for each consumer category for the 3-year period FY 2018-19 to FY 2021-22, and the 2-year

period FY 2019-20 to FY 2021-22, along with the y-o-y growth rate of FY 2020-21 over FY 2021-22, as summarized in the table below.

**Table 7.1: Actual category-wise Energy Sales (MU)**

S No	Category	2018-19	2019-20	2020-21	2021-22	2022-23 (till Sept)
<b>A</b>	<b>LT Supply</b>					
1	Kutir Jyoti	15.22	21.56	4.46	4.36	1.98
2	Domestic	392.04	397.62	478.93	523.6	265.47
3	Commercial LT	45.54	46.71	70.26	65.94	32.47
4	Public Lighting	5.41	5.22	4.55	4.12	2.16
5	PWW	2.14	2.26	1.57	1.37	0.69
6	Irrigation and Agriculture					
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	1.22	1.31	1.43	1.23	0.61
7	Cottage and Small Industries	19.96	20.58	24.68	20.77	10.38
	<b>Total LT</b>	<b>481.53</b>	<b>495.26</b>	<b>585.88</b>	<b>621.39</b>	<b>313.76</b>
<b>B</b>	<b>HT Supply</b>					
1	Commercial HT	6.45	5.34	23.58	21.31	10.86
2	PWW	17.24	20.00	25.43	25.59	13.17
3	Irrigation and Agriculture					
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	0.78	5.34	0.93	0.79	0.4
4	Medium Industries	4.05	2.01	5.00	4.18	2.36
5	Large Industries	5.65	13.31	9.32	8.69	4.64
6	Bulk Supply	111.48	133.04	98.05	96.25	48.59
	<b>Total HT</b>	<b>145.65</b>	<b>179.04</b>	<b>162.31</b>	<b>156.81</b>	<b>80.02</b>
	<b>Grand Total</b>	<b>627.18</b>	<b>674.30</b>	<b>748.19</b>	<b>778.19</b>	<b>393.78</b>

As can be seen, MSPDCL overall energy sales are significantly dependent on the domestic consumers to the extent of around 60%. MSPDCL is of the view that there are various factors contributing to the growth in the energy sales and beyond the control of the utility including factors such as Rural Electrification, Government Policy, economic climate, weather conditions and force majeure events like natural disasters, etc. MSPDCL therefore, for projecting the category-wise consumption for the FY 2023-24 to FY 2027-28 has considered the past growth trends of last 4 years in each of the consumer category sales and the availability of supply. It is also submitted that the sales in Domestic category have increased due to launch of Saubhagya Scheme. The growth rates, on CAGR basis, for projection have been calculated as below:

**Table 7.2: Category-wise Energy Sales CAGR (%)**

S No	Category	3-year	2-year	1-year	Growth rate assumed
<b>A</b>	<b>LT Supply</b>				
1	Kutir Jyoti	-34%	-55%	-2%	0%
2	Domestic	10%	15%	9%	10%
3	Commercial LT	13%	19%	-6%	10%
4	Public Lighting	-9%	-11%	-9%	1%
5	PWW	-14%	-22%	-13%	0%
6	Irrigation and Agriculture				
(i)	Agriculture	0%	0%	0%	0%
(ii)	Irrigation (Others)	0%	-3%	-14%	0%
7	Cottage and Small Industries	1%	0%	-16%	1%
<b>B</b>	<b>HT Supply</b>				
1	Commercial HT	49%	100%	-10%	10%
2	PWW	14%	13%	1%	10%
3	Irrigation and Agriculture				
(i)	Agriculture	0%	0%	0%	0%
(ii)	Irrigation (Others)	0%	-62%	-15%	0%
4	Medium Industries	1%	44%	-16%	1%
5	Large Industries	15%	-19%	-7%	10%
6	Bulk Supply	-5%	-15%	-2%	1%

The category wise CAGR has been applied on sales volume of FY 2021-22. This is because of the fact that, in FY 2021-22, we have got actual total energy sales data for FY 2021-22. On this sales data of FY 2021-22, the historical growth trend percentage is applied to project sales for FY 2023-24 to FY 2027- 28.

**Table 7.3: Category-wise Projected Energy Sales (MU)**

S No	Category	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
<b>A</b>	<b>LT Supply</b>						
1	Kutir Jyoti	3.96	3.96	3.96	3.96	3.96	3.96
2	Domestic	552.18	607.40	668.13	734.95	808.44	889.29
3	Commercial LT	64.94	71.43	78.58	86.44	95.08	104.59
4	Public Lighting	5.67	5.73	5.78	5.84	5.90	5.96
5	PWW	1.38	1.38	1.38	1.38	1.38	1.38
6	Irrigation and Agriculture						
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	1.22	1.22	1.22	1.22	1.22	1.22
7	Cottage and Small Industries	20.76	20.97	21.18	21.39	21.60	21.82
	<b>Total LT</b>	<b>650.11</b>	<b>712.08</b>	<b>780.23</b>	<b>855.17</b>	<b>937.59</b>	<b>1028.21</b>
<b>B</b>	<b>HT Supply</b>						

S No	Category	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
1	Commercial HT	21.72	23.89	26.28	28.91	31.80	34.98
2	PWW	26.34	28.97	31.87	35.06	38.56	42.42
3	Irrigation and Agriculture						
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	0.80	1.00	1.20	1.40	1.60	1.60
4	Medium Industries	4.72	4.77	4.81	4.86	4.91	4.96
5	Large Industries	9.28	10.21	11.23	12.35	13.59	14.95
6	Bulk Supply	101.07	103.08	105.11	107.16	109.23	111.32
	<b>Total HT</b>	<b>163.93</b>	<b>171.92</b>	<b>180.50</b>	<b>189.74</b>	<b>199.69</b>	<b>210.23</b>
	<b>TOTAL (LT+HT)</b>	<b>814.03</b>	<b>884.00</b>	<b>960.74</b>	<b>1044.92</b>	<b>1137.28</b>	<b>1238.44</b>

### Growth projections for FY 2023-24 to FY 2027-28

This section discusses in detail the basis for taking the growth projections for various categories of consumers as enumerated above. For projecting the no. of consumers for FY 2023-24 to 2027-28, the base number of FY 2021-22 is considered.

#### Domestic/Residential

MSPDCL has witnessed a remarkable growth in the units sold in the last four years in this category. The average CAGR growth rate between FY 2018-19 to FY 2021-22 has been 10.00%. As this category contributes the most of the sales and increase in rural electrification, the company expects this trend to continue for the Third Control Period.

#### Commercial

Considering the past trend in increasing consumer numbers in this category, a growth rate of 10.00% over actual number of FY 2021-22 is considered for projecting the number of consumers for Third Control Period.

#### Irrigation and Agriculture

Considering the trend of declining sales for Irrigation and Agriculture (both HT and LT) category, it was prudent to adopt a 0% growth rate for this category.

#### Public Lighting

The past sales trend suggest that sales from this category were falling. However, in the current year, MSPDCL has installed 64 high mast lights and 1164 street lights. As such, this has been factored in while calculating the consumption for FY 2022-23. Despite, negative sales growth trend, it shall be prudent to adopt a 1% growth rate for Third Control Period for this category as it comes under the essential services category.

#### Large Industry

Large Industry category has shown robust sales growth w.r.t. the time period under consideration. The fall in sales in recent years is due to COVID-19 induced lockdown. However, considering, the State Government has undertaken several initiatives to promote industrial growth in Manipur, we have considered a 10% growth rate for this category.

### Commission's Analysis

The Category wise sales forecast as projected by the Licensee for each year of the entire MYT period is considered as approved by the Commission without any modifications to the sales quantum.

## 7.3. Consumer Profile

### Petitioner's Submission

Manipur State Power Distribution Company Limited caters to a diverse consumer mix constituting of domestic, commercial, HT Industry, LT Industry and agriculture consumers. The number of consumers in various categories is summarized in table below:

**Table 7.4: Category-wise Projected Number of Consumers**

S. No	Category	2021-22 (Actual)	2022-23 (Est.)	2023-24	2024-25	2025-26 (Projected)	2026-27	2027-28
<b>A</b>	<b>LT Supply</b>							
1	Kutir Jyoti	15,907	14,406	13942	13494	13060	12639	12233
2	Domestic							
	First – 100 kWh/Month	411,237	416,205	418856	421524	424209	426911	429631
	Next - 100 kWh/Month	35,434	37,960	38997	40063	41158	42283	43438
	Above 200 kWh/Month	12,019	15,270	16835	18561	20463	22561	24873
3	Commercial LT							
(i)	First – 100 kWh/Month	17,216	17,414	17748	18088	18434	18787	19147
(ii)	Next - 100 kWh/Month	4,091	5,194	5641	6127	6655	7229	7851
(iii)	Above 200 kWh/Month	5,486	5,524	6198	6954	7802	8753	9821
4	Public Lighting	471	494	505	516	528	540	552
5	PWW	42	42	43	43	44	44	45
6	Irrigation and Agriculture							
(i)	Agriculture	0	0	0	0	0	0	0
(ii)	Irrigation (Others)	48	48	48	49	49	49	50
7	Cottage and Small Industries	2,385	2,385	2402	2420	2437	2455	2473
	<b>Total LT</b>	<b>504,336</b>	<b>514,942</b>	<b>521,216</b>	<b>527,838</b>	<b>534,839</b>	<b>542,251</b>	<b>550,113</b>
<b>B</b>	<b>HT Supply</b>							
1	Commercial HT	1,088	1,109	1172	1239	1309	1383	1462
2	PWW	202	208	221	234	248	263	279
3	Irrigation and Agriculture							
(i)	Agriculture	0	0	0	0	0	0	0
(ii)	Irrigation (Others)	21	21	21	21	21	21	21
4	Medium Industries	99	112	125	140	156	175	195
5	Large Industries	44	47	50	54	58	62	67
6	Bulk Supply	412	416	426	436	446	456	467
	<b>Total HT</b>	<b>1,866</b>	<b>1,913</b>	<b>2,015</b>	<b>2,123</b>	<b>2,238</b>	<b>2,360</b>	<b>2,491</b>
	<b>Grand Total</b>	<b>506,202</b>	<b>516,855</b>	<b>523,231</b>	<b>529,961</b>	<b>537,077</b>	<b>544,612</b>	<b>552,604</b>

The Break-up of the category-wise number of consumers and the CAGR growth rates for different periods (4 year, 3 year, 2 year and year on year) are as follows:

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**Table 44: Category wise Number of consumers CAGR (%)**

Sl. No	Category	4-Year	3-Year	2-Year	1-Year	Growth rate assumed
<b>A</b>	<b>LT Supply</b>					
1	Kutir Jyoti	-2%	-3%	-	-9%	-3%
2	Domestic					
(i)	First 100 kWh/Month	0%	0%	0.6%	1%	1%
(ii)	Next - 100 kWh/Month	3%	3%	4.1%	7%	3%
(iii)	Above 200 kWh/Month	9%	10%	15.80%	27%	10%
3	Commercial LT					
(i)	First 100 kWh/Month	1%	2%	2.6 %	1%	2%
(ii)	Next 100 kWh/Month	9%	10%	16.9%	27%	9%
(iii)	Above 200 kWh/Month	12%	16%	26.4%	1%	12%
4	Public Lighting	3%	2%	2.4%	5%	2%
5	PWW	13%	6%	1.2%	0%	1.2%
6	Irrigation and Agriculture					
(i)	Agriculture	0%	0%	0.0%	0%	0%
(ii)	Irrigation (Others)	5%	1%	0.0%	0%	1%
7	Cottage and Small Industries	1%	0%	0.0%	0%	1%
<b>B</b>	<b>HT Supply</b>					
1	Commercial HT	23%	17%	5.7%	2%	5.7%
2	PWW	4%	6%	4.9%	3%	6%
3	Irrigation and Agriculture					
(i)	Agriculture	0%	0%	0.0	0%	0%
(ii)	Irrigation (Others)	-6%	-8%	-	0%	0%
4	Medium Industries	26%	12%	12.8%	13%	12%
5	Large Industries	15%	7%	9.8%	7%	7%
6	Bulk Supply	-1%	2%	0.5%	1%	2%

### Commission's Analysis

The above category wise Consumers numbers projected by the Licensee is approved by the Commission for the MYT period at the same level depicted by MSPDCL.

#### 7.4. Connected Load

##### Petitioner's Submission

The growth rate for projecting connected load has been assumed to be 40% of the growth rate assumed for projecting the sales. The table below mentions the growth rate

assumed for the projection of connected load from FY 2023-24 to FY 2027-28.

**Table 7.5: Category wise connected load CAGR (%)**

Sl. No	Category	Growth rate assumed
<b>A</b>	<b>LT Supply</b>	
1	Kutir Jyoti	0%
2	Domestic	
	First 100 kWh/Month	4.0%
	Next 100 kWh/Month	4.00
	Above 200 kWh/Mont	4.0%
3	Commercial LT	
	First 100 kWh/Month	4.0%
	Next 100 kWh/Month	4.00
	Above 200 kWh/Mont	4.0%
4	Public Lighting	0.4%
5	Public Water Works	0.0%
6	Irrigation and Agriculture	
	(i) Agriculture	0.0%
	(ii) Irrigation Others	0.0%
7	Cottage and Small Industries	0.4%
<b>B</b>	<b>HT supply</b>	
1	Commercial HT	4.0%
2	Public Water Works	4.0%
3	Irrigation and Agriculture	
	(i) Agriculture	0.0%
	(ii) Irrigation (Others)	0.0%
4	Medium Industries	0.4%
5	Large Industries	4.0%
6	Bulk Supply	0.4%

The connected load in various categories is summarized in table below:

**Table 7.6: Category wise Projected Connected load CAGR (MW)**

Sl. No	Category	2021-22 (Actual)	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
<b>A</b>	<b>LT Supply</b>							
1	Kutir Jyoti	7.37	6.97	6.97	6.97	6.97	6.97	6.97
2	Domestic							
(i)	First - 100 kWh/Month	586.24	587.64	611.14	635.59	661.01	687.45	714.95
(ii)	Next - 100 kWh/Month	84.36	84.83	88.22	91.75	95.42	99.24	103.21
(iii)	Above 200 kWh/Month	41.30	41.45	43.11	44.83	46.63	48.49	50.43
3	Commercial LT							
(i)	First - 100 kWh/Month	43.41	44.79	46.58	48.45	50.38	52.40	54.50
(ii)	Next - 100 kWh/Month	9.42	9.64	10.02	10.42	10.84	11.27	11.72
(iii)	Above 200 kWh/Month	36.44	36.96	38.44	39.98	41.57	43.24	44.97

Sl. No	Category	2021-22 (Actual)	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
4	Public Lighting	1.21	1.22	1.23	1.23	1.24	1.24	1.25
5	PWW	0.48	0.45	0.45	0.45	0.45	0.45	0.45
6	Irrigation and Agriculture							
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	0.37	0.37	0.37	0.37	0.37	0.37	0.37
7	Cottage & Small Industries	19.27	20.30	20.38	20.46	20.54	20.63	20.71
	<b>Total LT</b>	<b>829.85</b>	<b>834.61</b>	<b>866.91</b>	<b>900.50</b>	<b>935.42</b>	<b>971.75</b>	<b>1009.52</b>
<b>B</b>	<b>HT Supply</b>							
1	Commercial HT	21.84	26.20	27.25	28.34	29.47	30.65	31.88
2	PWW	17.06	17.61	18.31	19.04	19.81	20.60	21.42
3	Irrigation and Agriculture							
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	0.74	0.76	0.76	0.76	0.76	0.76	0.76
4	Medium Industries	4.54	4.61	4.62	4.64	4.66	4.68	4.70
5	Large Industries	12.07	12.49	12.99	13.51	14.05	14.61	15.19
6	Bulk Supply	51.53	49.19	49.39	49.58	49.78	49.98	50.18
	<b>Total HT</b>	<b>107.76</b>	<b>110.86</b>	<b>113.32</b>	<b>115.88</b>	<b>118.53</b>	<b>121.28</b>	<b>124.14</b>
	<b>Grand Total</b>	<b>937.61</b>	<b>945.47</b>	<b>980.23</b>	<b>1016.38</b>	<b>1053.96</b>	<b>1093.03</b>	<b>1133.65</b>

### Commission Analysis:

The category wise Connected load projection appears realistic and Commission approves the figures indicated in the filings for MYT period from FY 2023-24 to FY 2027-28.

## 7.5. T&D loss

### Petitioner's submission

Being a hilly terrain and characterized by population spread out throughout the State, the system network of the State consists of long length of distribution and LT lines, with aging components which are being upgraded through various schemes. The MSPDCL (erstwhile EDM) has achieved a significant reduction in transmission & distribution losses in the past.

It is submitted that T&D has been computed based on the actual Power purchase. Further, the transmission licensee, MSPCL operates the 33 kV network which is the input point of the distribution network. It may be noted that MSPDCL network periphery included only 11KV system and below whereas 33 KV and above transmission network falls under the MSPCL network. Therefore, segregating the MSPDCL distribution losses and MSPCL network losses, in absence of proper metering arrangements is not possible.

Further, the Hon'ble Commission has stated that w.e.f. 01.02.2014, MSPDCL shall be



responsible for distribution losses. In absence of an accurate figure of losses for 33 kV and above network, the Commission had calculated the losses without subtracting the intra state transmission losses (@ 8.50% in the ARR order). Because of huge differences in the figures of intra state transmission losses of claimed and approved as well as year wise difference, we have shown the combined T&D losses here.

Continuous efforts made towards implementation of prepaid metering in the distribution area of MSPDCL has started to show its effect in the form of higher revenue collection and decline in losses, the actual LT distribution losses in Manipur are higher than the Commission approved distribution losses as given in its ARR order.

The T&D loss trajectory for Third Control Period is aimed at reducing the T&D losses to around 15% for FY 2027-28. Despite increase in number of LT connections due to various electrification schemes, MSPDCL has been able to reduce the T&D losses and has made continuous efforts for reducing the losses including installation of pre-paid metering and upgrading its distribution infrastructure. MSPDCL shall be installing smart prepaid meters under the Revamped Distribution Sector Scheme (RDSS). This would aid in reducing the T&D loss.

The T&D loss trajectory for Third Control Period is given in the table below:

**Table 7.7: T&D loss trajectory (%) by MSPDCL**

Particulars	2021-22	2022-23 (Estimated)	2023-24	2024-25	2025-26	2026-27	2027-28
T&D Loss	24.58%	28.94%	25.00%	22.50%	20.00%	17.50%	15.00%

The MSPDCL submits to the Commission to approve the distribution losses submitted herein.

### Commission's Analysis

The following T&D Loss Trajectory is approved by the Commission for MYT period

**Table 7.8: T&D loss trajectory (%) approved by Commission**

Particulars	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Trans. Loss	7.80%	7.20%	7.15%	7.10%	7.05%	7.00%
Dist. Loss	22.54%	18.82%	16.22%	13.60%	10.99%	8.38%
T&D Loss	28.58%	24.66%	22.21%	19.73%	17.27%	14.29%

However, the transmission Losses are not relevant to be referred to by the Licensee in its ARR filing petition as the subject purely pertains to MSPCL and not MSPDCL. However, the same is stated here for MSPDCL clarity.

## 7.6. Energy Balance

### Petitioners Submission

To arrive at the total energy requirement, the total sales in MUs as projected above has been grossed up by factoring in transmission and distribution losses. The inter-state transmission losses viz. PGCIL pooled losses are assumed at same level as in FY 2021-22 for the entire control period.

Further, the distribution losses are taken as per the projections above. Based on the projected sales for FY 2023-24 to FY 2027-28 and the T&D loss target as shown above, the overall energy requirement at the state periphery of Manipur is projected respectively. The projections for energy requirement for the MYT Third Control Period is shown in the table below:

**Table 7.9: Energy Balance for Third Control Period**

Sl. No.	Particulars	Unit	2023-24	2024-25	2025-26	2026-27	2027-28
1	Energy Sales	MU	884.00	960.74	1044.92	1137.28	1238.44
2	T&D Loss	%	25.00%	22.50%	20.00%	17.50%	15.00%
3	Energy Requirement at T&D boundary	MU	1178.67	1239.66	1306.15	1378.52	1456.99
4	Energy Requirement at State periphery	MU	1178.67	1239.66	1306.15	1378.52	1456.99
5	Inter-State Transmission Losses	%	2.36%	2.36%	2.36%	2.36%	2.36%
6	Total Energy Requirement	MU	1207.16	1269.63	1337.72	1411.84	1492.21
7	Total Energy Available from Long Term Sources	MU	1259.17	1259.17	1259.17	1259.17	1259.17
8	Net Surplus / (Deficit) at State Periphery	MU	52.01	-10.46	-78.55	-152.67	-233.04
9	Net Surplus Energy Surplus/Deficit for Short Term Sale/Purchase	MU	53.26	-10.71	-80.45	-156.36	-238.68

### Commission analysis:

The Energy balance for each year of the five-year MYT period from FY 2023-24 to FY 2027-28 is tabulated below year wise, showing the comparison between MSPDCL & Commission deduced energy balance which will clearly indicate the minute details of energy for comprehension of the projections made by the licensee.

**Table 7.10: Commission adopted Energy balance for quantum of purchase in MYT period**

Sl No	Particulars (FY 2023-24)	Unit	APR (MSPDCL)	Actuals (Apprvd)
A	Distribution Energy Requirement			
1	Energy for Retail Sales	MU	884.00	884.00

Sl No	Particulars (FY 2023-24)	Unit	APR (MSPDCL)	Actuals (Apprvd)
2	Distribution loss	%	19.18%	18.82%
3	Distribution loss	MU	209.85	204.89
4	Energy need at Distribution Input	MU	1093.85	1088.89

B	Energy Availability (2023-24)	Unit	APR (MSPDCL)	Actuals (Apprvd)
5	Power Purchase from CGS & Others	MU	1259.17	1259.17
6	Add: IEX Purchases	MU	50.35	50.35
7	Add: UI Over drawl	MU	13.01	13.01
8	Add: Banking units Returns	MU	111.32	111.32
	Less: IEX Sales (Gross)		(115.32)	
	Less: Banking Mode sales (Gross)		(111.32)	
9	Gross Energy handled at NER Level	MU	1207.21	1433.85
10	Less: External (pooled) Losses	%	2.36%	2.36%
11	Less: External Energy pooled Losses	MU	28.49	33.84
12	Energy after External Losses (6-8)	MU	1178.72	1400.01
13	Less: IEX Sales (Net)	MU		-115.32
14	Less: Banking Mode sales (Net)	MU		-111.32
15	Less: UI Under drawl	MU		
16	Add: Own Generation (Net)	MU		
17	Available Energy at State periphery	MU	1178.72	1173.37
18	Intra-State Transmission Loss	%	7.20%	7.20%
19	Intra-State Transmission Loss	MU	84.87	84.48
20	Energy Available at Distribution input	MU	1093.85	1088.89
	Overall Losses (T & D) - MU		294.72	289.37
	Overall Losses (T & D) - %		25.00%	24.66%

Sl No	Particulars (FY2024-25)	Unit	APR (MSPDCL)	Actuals (Apprvd)
A	Distribution Energy Requirement			
1	Energy for Retail Sales	MU	960.74	960.74
2	Distribution loss	%	16.55%	16.22%
3	Distribution loss	MU	190.55	186.04
4	Energy need at Distribution Input	MU	1151.29	1146.78

B	Energy Availability (2024-25)	Unit	APR (MSPDCL)	Actuals (Apprvd)
5	Power Purchase from CGS & Others	MU	1259.17	1259.17
6	Add: IEX Purchases	MU	109.47	109.47
7	Add: UI Over drawl	MU	13.01	13.01
8	Add: Banking units Returns	MU	111.32	111.32
	Less: IEX Sales (Gross)		(114.47)	
	Less: Banking Mode sales (Gross)		(111.32)	
9	Gross Energy handled at NER Level	MU	1267.18	1492.97
10	Less: External (pooled) Losses	%	2.15%	2.15%
11	Less: External Energy pooled Losses	MU	27.24	32.09
12	Energy after External Losses (6-8)	MU	1239.94	1460.88
13	Less: IEX Sales (Net)	MU		-114.47
14	Less: Banking Mode sales (Net)	MU		-111.32
15	Less: UI Under drawal	MU		0.00
16	Add: Own Generation (Net)	MU		
17	Available Energy at State periphery	MU	1239.94	1235.09

B	Energy Availability (2024-25)	Unit	APR (MSPDCL)	Actuals (Apprvd)
18	Intra-State Transmission Loss	%	7.15%	7.15%
19	Intra-State Transmission Loss	MU	88.66	88.31
20	Energy Available at Distribution input	MU	1151.29	1146.78
	Overall Losses (T & D) - MU		279.20	274.35
	Overall Losses (T & D) - %		22.52%	22.21%

Sl. No	Particulars (FY 2025-26)	Unit	APR (MSPDCL)	Actuals (Apprvd)
A	Distribution Energy Requirement			
1	Energy for Retail Sales	MU	1044.92	1044.92
2	Distribution loss	%	13.91%	13.60%
3	Distribution loss	MU	168.83	164.47
4	Energy need at Distribution Input	MU	1213.75	1209.39

B	Energy Availability (2025-26)	Unit	APR (MSPDCL)	Actuals (Apprvd)
5	Power Purchase from CGS & Others	MU	1259.16	1259.17
6	Add: IEX Purchases	MU	175.64	175.64
7	Add: UI Over drawl	MU	13.01	13.01
8	Add: Banking units Returns	MU	111.32	111.32
	Less: IEX Sales (Gross)		(113.40)	
	Less: Banking Mode sales (Gross)		(111.32)	
9	Gross Energy handled at NER Level	MU	1334.41	1559.14
10	Less: External (pooled) Losses	%	2.09%	2.09%
11	Less: External Energy pooled Losses	MU	27.90	32.60
12	Energy after External Losses (6-8)	MU	1306.51	1526.54
13	Less: IEX Sales (Net)	MU		-113.40
14	Less: Banking Mode sales (Net)	MU		-111.32
15	Less: UI Under drawl	MU		0.00
16	Add: Own Generation (Net)	MU		
17	Available Energy at State periphery	MU	1306.51	1301.82
18	Intra-State Transmission Loss	%	7.10%	7.10%
19	Intra-State Transmission Loss	MU	92.76	92.43
20	Energy Available at Distribution input	MU	1213.75	1209.39
	Overall Losses (T & D) - MU		261.59	256.90
	Overall Losses (T & D) - %		20.02%	19.73%

Sl. No	Particulars (FY 2026-27)	Unit	APR (MSPDCL)	Actuals (Apprvd)
A	Distribution Energy Requirement			
1	Energy for Retail Sales	MU	1137.28	1137.28
2	Distribution loss	%	11.28%	10.99%
3	Distribution loss	MU	144.60	140.44
4	Energy need at Distribution Input	MU	1281.88	1277.72

B	Energy Availability (2026-27)	Unit	APR (MSPDCL)	Actuals (Apprvd)
5	Power Purchase from CGS & Others	MU	1259.17	1259.17
6	Add: IEX Purchases	MU	249.20	249.20
7	Add: UI Over drawl	MU	13.01	13.01
8	Add: Banking units Returns	MU	111.32	111.32
	Less: IEX Sales (Gross)		(114.40)	
	Less: Banking Mode sales (Gross)		(111.32)	
9	Gross Energy handled at NER Level	MU	1406.98	1632.70

B	Energy Availability (2026-27)	Unit	APR (MSPDCL)	Actuals (Apprvd)
10	<b>Less: External (pooled) Losses</b>	%	<b>1.98%</b>	<b>1.98%</b>
11	Less: External Energy pooled Losses	MU	27.88	32.35
12	<b>Energy after External Losses (6-8)</b>	<b>MU</b>	<b>1379.10</b>	<b>1600.35</b>
13	Less: IEX Sales (Net)	MU		-114.40
14	Less: Banking Mode sales (Net)	MU		-111.32
15	Less: UI Under drawl	MU		0.00
16	Add: Own Generation (Net)	MU		
17	<b>Available Energy at State periphery</b>	<b>MU</b>	<b>1379.10</b>	<b>1374.63</b>
18	<b>Intra-State Transmission Loss</b>	%	<b>7.05%</b>	<b>7.05%</b>
19	Intra-State Transmission Loss	MU	97.23	96.91
20	<b>Energy Available at Distribution input</b>	<b>MU</b>	<b>1281.88</b>	<b>1277.72</b>
	<b>Overall Losses (T &amp; D) - MU</b>		241.82	237.35
	<b>Overall Losses (T &amp; D) - %</b>		17.53%	17.27%

Sl. No	Particulars (FY 2027-28)	Unit	APR (MSPDCL)	Actuals (Apprvd)
A	<b>Distribution Energy Requirement</b>			
1	Energy for Retail Sales	MU	1238.44	1238.44
2	<b>Distribution loss</b>	%	<b>8.64%</b>	<b>8.38%</b>
3	Distribution loss	MU	117.19	113.29
4	<b>Energy need at Distribution Input</b>	<b>MU</b>	<b>1355.63</b>	<b>1351.73</b>

B	Energy Availability (2027-28)	Unit	APR (MSPDCL)	Actuals (Apprvd)
5	Power Purchase from CGS & Others	MU	1259.17	1259.17
6	Add: IEX Purchases	MU	328.25	328.25
7	Add: UI Over drawl	MU	13.01	13.01
8	Add: Banking units Returns	MU	111.32	111.32
	Less: IEX Sales (Gross)		(114.09)	
	Less: Banking Mode sales (Gross)		(111.32)	
9	<b>Gross Energy handled at NER Level</b>	<b>MU</b>	<b>1486.34</b>	<b>1711.75</b>
10	<b>Less: External (pooled) Losses</b>	%	<b>1.86%</b>	<b>1.86%</b>
11	Less: External Energy pooled Losses	MU	27.67	31.87
12	<b>Energy after External Losses (6-8)</b>	<b>MU</b>	<b>1458.67</b>	<b>1679.88</b>
13	Less: IEX Sales (Net)	MU		-114.09
14	Less: Banking Mode sales (Net)	MU		-111.32
15	Less: UI Under drawl	MU	(1.00)	-1.00
16	Add: Own Generation (Net)	MU		
17	<b>Available Energy at State periphery</b>	<b>MU</b>	<b>1457.67</b>	<b>1453.47</b>
18	<b>Intra-State Transmission Loss</b>	%	<b>7.00%</b>	<b>7.00%</b>
19	Intra-State Transmission Loss	MU	102.04	101.74
20	<b>Energy Available at Distribution input</b>	<b>MU</b>	<b>1355.63</b>	<b>1351.73</b>
	<b>Overall Losses (T &amp; D) - MU</b>		219.23	215.03
	<b>Overall Losses (T &amp; D) - %</b>		15.04%	14.79%

The above losses shall be the ceiling limits and actuals shall be endeavored to be kept lower in reality by MSPDCL. The Inter State Losses so adopted are as per the values considered by the Licensee in its filing petition data.

#### 7.7. Power Purchase Quantum and Cost

The energy requirement for the MSPDCL is met by supply of power from Central  
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Generating Stations and a small quantum is purchased through short term market. MSPDCL mainly relies on the allocations of power from Central Generating Stations like NHPC, NEEPCO, OTPC Pallatana Unit I and Unit II. MSPDCL has surrendered the allocation from Baramura GBPP Unit IV and V from June 2022. Further, it has reduced the allocation from NTPC Bongaigaon Unit 1-3 from 52 MW earlier to 25.83 MW. MSPDCL is expected to receive power from Lower Subansiri Stage I of total installed capacity 500 MW from April 2023.

The allocation of tied up CGS for FY 2023-24 is shown in the table below:

**Table 7.11: MSPDCL Allocation from CGS for FY 2023-24**

Sl. No	Sources of Power	Installed Capacity (MW)	Allocation (MW)
<b>A</b>	<b>CGS - NEEPCO</b>		
1	Kopili - I HE	200.00	15.03
2	Kopili - II HE	25.00	1.77
3	Khandong HE	50.00	3.35
4	Ranganandi HE Project	405.00	34.40
5	Doyang HE Project	75.00	5.99
6	Assam GBPP	291.00	23.96
7	Agartala GTPP	130.00	10.85
<b>B</b>	<b>CGS - NHPC</b>		
1	Loktak HEP	105.00	31.74
2	Loktak Free power		12.60
3	Lower Subansiri Stage I	500.00	22.00
<b>C</b>	<b>Other</b>		
1	OTPC Pallatana	726.00	52.00
<b>D</b>	<b>New Plants</b>		
1	NTPC Bongaigaon	750	25.83
2	Pare HEP	110	9.30
	<b>GRAND TOTAL</b>		<b>248.82</b>

The MSPDCL for the purpose of estimation of the power availability during FY 2022-23 has considered the following sources of power:

- NHPC (Loktak HEP) Central Public Sector Generating Stations, (NE Region);
- NTPC Bongaigaon Unit I-III
- NEEPCO (Hydro) Central Public Sector Eastern Region Generating Stations, (NE Region);
- NEEPCO (Gas) Central Public Sector Eastern Region Generating Stations, (NE Region);
- Baramura (Gas turbine), Unit IV & V; Tripura State Electricity Corporation Ltd.
- OTPC, Pallatana-Unit I and Unit II

- Power purchase from short-term sources (IEX).
- Over-drawl under unscheduled interchange during peak hours at lean period.

The power purchase quantum has been computed considering power purchase cost per unit for all MYT Third control period same as FY 2023-24 at average PLF for last 3 years. Also, a hike of 3% in the Average tariff is considered for projecting the power purchase cost.

### 7.7.1 Power Purchase Quantum

#### Petitioners Submission:

The projected power purchase quantum for Third Control Period is given in the table below:

**Table 7.12: Projected Power Purchase quantum for Third Control Period**

Sl. No	Sources of Power	2021-22 (Actual)	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
<b>A</b>	<b>CGS - NEEPCO</b>							
1	Kopili - I HE	-	-	63.52	63.52	63.52	63.52	63.52
2	Kopili - II HE	0.78	-	4.75	4.75	4.75	4.75	4.75
3	Khandong HE	17.51	-	10.87	10.87	10.87	10.87	10.87
4	Ranganandi HE Project	95.97	107.14	106.40	106.40	106.40	106.40	106.40
5	Doyang HE Project	7.48	14.23	12.41	12.41	12.41	12.41	12.41
6	Assam GBPP	141.61	142.24	129.85	129.85	129.85	129.85	129.85
7	Agartala GTPP	74.75	68.72	71.43	71.43	71.43	71.43	71.43
	<b>Sub-total</b>	<b>338.10</b>	<b>332.32</b>	<b>399.24</b>	<b>399.24</b>	<b>399.24</b>	<b>399.24</b>	<b>399.24</b>
<b>B</b>	<b>CGS - NHPC</b>							
1	Loktak HEP	118.89	127.58	143.85	143.85	143.85	143.85	143.85
2	Loktak Free power	46.70	63.26	60.91	60.91	60.91	60.91	60.91
	<b>Sub-total</b>	<b>165.59</b>	<b>190.83</b>	<b>204.76</b>	<b>204.76</b>	<b>204.76</b>	<b>204.76</b>	<b>204.76</b>
<b>C</b>	<b>Other</b>							
1	Baramura GBPP Unit IV and V	57.67	11.18					
2	OTPC Palatana	240.75	399.4	306.42	306.42	306.42	306.42	306.42
	<b>Sub-total</b>	<b>298.42</b>	<b>410.58</b>	<b>306.42</b>	<b>306.42</b>	<b>306.42</b>	<b>306.42</b>	<b>306.42</b>
<b>D</b>	<b>New Plants</b>							
1	NTPC Bongaigaon	313.12	232.83	231.87	231.87	231.87	231.87	231.87
2	Pare HEP	35.67	40.41	39.79	39.79	39.79	39.79	39.79
3	Lower Subansiri Stage I			77.09	77.09	77.09	77.09	77.09
	<b>Sub-total</b>	<b>348.80</b>	<b>273.24</b>	<b>348.75</b>	<b>348.75</b>	<b>348.75</b>	<b>348.75</b>	<b>348.75</b>
<b>E</b>	<b>Short-term power purchase</b>							
1	IEX Purchase	63.37	74.56	50.35	109.47	175.64	249.20	328.25
	<b>Sub-total</b>	<b>63.37</b>	<b>74.56</b>	<b>50.35</b>	<b>109.47</b>	<b>175.64</b>	<b>249.20</b>	<b>328.25</b>
<b>G</b>	<b>UI Overdrawl</b>	<b>12.87</b>	<b>13.20</b>	<b>13.01</b>	<b>13.01</b>	<b>13.01</b>	<b>13.01</b>	<b>13.01</b>
	<b>TOTAL</b>	<b>1227.15</b>	<b>1294.74</b>	<b>1322.52</b>	<b>1381.64</b>	<b>1447.82</b>	<b>1521.38</b>	<b>1600.43</b>

### 7.7.2 Power Purchase Cost

The cost of purchase from the central generating stations for FY Third Control Period is estimated based on the following method:

- The per unit power purchase rate for various stations was calculated for FY 2022-23.
- Per unit power purchase rate for FY 2022-23 till the month of September has been taken as per actuals. For the remaining months, same rate has been considered.
- The power purchase cost has been calculated by multiplying the per unit average power purchase rate as estimated above and projected units from each of the stations for FY 2020-21, FY 2021-22 and FY 2022-23.
- The method of estimating average power purchase rate for each of the stations and the per unit rates for MYT Third Control Period from is summarized in the table below:

**Table 7.13: Projected Power Purchase cost for FY 2022-23**

Sl. No.	Sources of Power	Energy Purchased/generated (ex-bus)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>			
1	Kopili - I HE	-	-	-
2	Kopili - II HE	-	-	-
3	Khandong HE	-	-	-
4	Ranganandi HE Project	107.14	22.33	2.08
5	Doyang HE Project	14.23	8.63	6.06
6	Assam GBPP	142.24	87.38	6.14
7	Agartala GTPP	68.72	40.09	5.83
	<b>Sub-total</b>	<b>332.32</b>	<b>158.43</b>	<b>4.77</b>
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	127.58	42.82	3.36
2	Loktak Free power	63.26		
	<b>Sub-total</b>	<b>190.83</b>	<b>42.82</b>	<b>2.24</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V	11.18	5.13	4.59
2	OTPC Pallatana Unit I	399.4	131.3	3.29
	<b>Sub-total</b>	<b>410.58</b>	<b>136.43</b>	<b>3.32</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon	232.83	149.91	6.44
2	Pare HEP	40.41	20.21	5.00
	<b>Sub-total</b>	<b>273.24</b>	<b>170.12</b>	<b>6.23</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	74.56	26.10	3.50
	<b>Sub-total</b>	<b>74.56</b>	<b>26.10</b>	<b>3.50</b>
<b>F</b>	<b>UI Over drawl</b>	<b>13.01</b>	<b>3.38</b>	<b>2.60</b>
	<b>TOTAL POWER PURCHASE COST</b>	<b>1294.74</b>	<b>536.70</b>	<b>4.15</b>



Table 7.14: Projected Power Purchase cost for FY 2023-24

SL. No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>			
1	Kopili - I HE	63.52	8.17	1.29
2	Kopili - II HE	4.75	0.83	1.75
3	Khandong HE	10.87	2.47	2.27
4	Ranganandi HE Project	106.40	25.11	2.36
5	Doyang HE Project	12.41	8.44	6.80
6	Assam GBPP	129.85	64.28	4.95
7	Agartala GTPP	71.43	34.80	4.87
	<b>Sub-total</b>	<b>399.24</b>	<b>144.10</b>	<b>3.61</b>
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	143.85	53.87	3.75
2	Loktak Free power	60.91		
	<b>Sub-total</b>	<b>204.76</b>	<b>53.87</b>	<b>2.63</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V			
2	OTPC Pallatana Unit I	306.42	107.68	3.51
	<b>Sub-total</b>	<b>306.42</b>	<b>107.68</b>	<b>3.51</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon Unit I	231.87	153.78	6.63
2	Pare HEP	39.79	20.44	5.14
3	Lower Subansiri Stage I	77.09	38.54	5.00
	<b>Sub-total</b>	<b>348.75</b>	<b>212.76</b>	<b>6.10</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	50.35	27.89	5.54
	<b>Sub-total</b>	<b>50.35</b>	<b>27.89</b>	<b>5.54</b>
<b>F</b>	<b>UI Over drawl</b>	<b>13.01</b>	<b>3.38</b>	<b>2.60</b>
<b>G</b>	<b>Renewable Energy Certificates</b>			
1	Solar		19.24	
2	Non-solar			
	<b>TOTAL POWER PURCHASE COST</b>	<b>1322.52</b>	<b>568.93</b>	<b>4.30</b>

Table 7.15: Projected Power Purchase cost for FY 2024-25

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
1	Kopili - I HE	63.52	8.42	1.33
2	Kopili - II HE	4.75	0.86	1.80
3	Khandong HE	10.87	2.54	2.34
4	Ranganandi HE Project	106.40	25.86	2.43
5	Doyang HE Project	12.41	8.70	7.01
6	Assam GBPP	129.85	66.21	5.10
7	Agartala GTPP	71.43	35.84	5.02
	<b>Sub-total</b>	<b>399.24</b>	<b>148.43</b>	<b>3.72</b>

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	143.85	55.49	3.86
2	Loktak Free power	60.91		
	<b>Sub-total</b>	<b>204.76</b>	<b>55.49</b>	<b>2.71</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V			
2	OTPC Pallatana Unit I	306.42	110.91	3.62
	<b>Sub-total</b>	<b>306.42</b>	<b>110.91</b>	<b>3.62</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon Unit I	231.87	158.39	6.83
2	Pare HEP	39.79	21.05	5.29
3	Lower Subansiri Stage I	77.09	39.70	5.15
	<b>Sub-total</b>	<b>348.75</b>	<b>219.14</b>	<b>6.28</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	109.47	60.65	5.54
	<b>Sub-total</b>	<b>109.47</b>	<b>60.65</b>	<b>5.54</b>
<b>F</b>	<b>UI Over drawl</b>	<b>13.01</b>	<b>3.38</b>	<b>2.60</b>
<b>G</b>	<b>Renewable Energy Certificates</b>			
1	Solar		17.74	
2	Non-solar			
	<b>TOTAL POWER PURCHASE COST</b>	<b>1381.64</b>	<b>615.74</b>	<b>4.45</b>

Table 7.16: Projected Power Purchase cost for FY 2025-26

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>			
1	Kopili - I HE	63.52	8.67	1.37
2	Kopili - II HE	4.75	0.88	1.86
3	Khandong HE	10.87	2.62	2.41
4	Ranganandi HE Project	106.40	26.64	2.50
5	Doyang HE Project	12.41	8.96	7.22
6	Assam GBPP	129.85	68.19	5.25
7	Agartala GTPP	71.43	36.92	5.17
	<b>Sub-total</b>	<b>399.24</b>	<b>152.88</b>	<b>3.83</b>
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	143.85	57.15	3.97
2	Loktak Free power	60.91		
	<b>Sub-total</b>	<b>204.76</b>	<b>57.15</b>	<b>2.79</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V			
2	OTPC Pallatana Unit I	306.42	114.24	3.73
	<b>Sub-total</b>	<b>306.42</b>	<b>114.24</b>	<b>3.73</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon Unit I	231.87	163.14	7.04

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs. Crs)	Average Rate (Rs/kWh)
2	Pare HEP	39.79	21.68	5.45
3	Lower Subansiri Stage I	77.09	40.89	5.30
	<b>Sub-total</b>	<b>348.75</b>	<b>225.72</b>	<b>6.47</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	175.64	97.31	5.54
	<b>Sub-total</b>	<b>175.64</b>	<b>97.31</b>	<b>5.54</b>
<b>F</b>	<b>UI Over drawl</b>	<b>13.01</b>	<b>3.38</b>	<b>2.60</b>
<b>G</b>	<b>Renewable Energy Certificates</b>			
1	Solar		16.58	
2	Non-solar			
	<b>TOTAL POWER PURCHASE COST</b>	<b>1447.82</b>	<b>650.68</b>	<b>4.60</b>

Table 7.17: Projected Power Purchase cost for FY 2026-27

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs.Crs)	Average Rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>			
1	Kopili - I HE	63.52	8.93	1.41
2	Kopili - II HE	4.75	0.91	1.91
3	Khandong HE	10.87	2.70	2.48
4	Ranganandi HE Project	106.40	27.44	2.58
5	Doyang HE Project	12.41	9.23	7.43
6	Assam GBPP	129.85	70.24	5.41
7	Agartala GTPP	71.43	38.03	5.32
	<b>Sub-total</b>	<b>399.24</b>	<b>157.46</b>	<b>3.94</b>
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	143.85	61.19	4.25
2	Loktak Free power	60.91		
	<b>Sub-total</b>	<b>204.76</b>	<b>61.19</b>	<b>2.99</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V			
2	OTPC Pallatana Unit I	306.42	117.67	3.84
	<b>Sub-total</b>	<b>306.42</b>	<b>117.67</b>	<b>3.84</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon Unit I	231.87	168.04	7.25
2	Pare HEP	39.79	22.33	5.61
3	Lower Subansiri Stage I	77.09	42.12	5.46
	<b>Sub-total</b>	<b>348.75</b>	<b>232.49</b>	<b>6.67</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	249.20	138.06	5.54
	<b>Sub-total</b>	<b>249.20</b>	<b>138.06</b>	<b>5.54</b>
<b>F</b>	<b>UI Over drawl</b>	<b>13.01</b>	<b>3.38</b>	<b>2.60</b>
<b>G</b>	<b>Renewable Energy Certificates</b>			
1	Solar		15.57	
2	Non-solar			

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs.Crs)	Average Rate (Rs/kWh)
	<b>TOTAL POWER PURCHASE COST</b>	<b>1521.38</b>	<b>725.82</b>	<b>4.77</b>

Table 7.18: Projected Power Purchase cost for FY 2027-28

S No.	Sources of Power	Energy Purchased generated (ex-bus)	Total Cost (Rs.Crs)	Average Rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>			
1	Kopili - I HE	63.52	9.20	1.45
2	Kopili - II HE	4.75	0.94	1.97
3	Khandong HE	10.87	2.78	2.55
4	Ranganandi HE Project	106.40	28.26	2.66
5	Doyang HE Project	12.41	9.50	7.66
6	Assam GBPP	129.85	72.34	5.57
7	Agartala GTPP	71.43	39.17	5.48
	<b>Sub-total</b>	<b>399.24</b>	<b>162.19</b>	<b>4.06</b>
<b>B</b>	<b>CGS - NHPC</b>			
1	Loktak HEP	143.85	60.63	4.22
2	Loktak Free power	60.91		
	<b>Sub-total</b>	<b>204.76</b>	<b>60.63</b>	<b>2.96</b>
<b>C</b>	<b>Other</b>			
1	Baramura GBPP Unit IV and V			
2	OTPC Pallatana Unit I	306.42	121.20	3.96
	<b>Sub-total</b>	<b>306.42</b>	<b>121.20</b>	<b>3.96</b>
<b>D</b>	<b>New Plants</b>			
1	NTPC Bongaigaon Unit I	231.87	173.08	7.46
2	Pare HEP	39.79	23.00	5.78
3	Lower Subansiri Stage I	77.09	43.38	5.63
	<b>Sub-total</b>	<b>348.75</b>	<b>239.46</b>	<b>6.87</b>
<b>E</b>	<b>Short-term power purchase</b>			
1	IEX Purchase	328.25	181.85	5.54
	<b>Sub-total</b>	<b>328.25</b>	<b>181.85</b>	<b>5.54</b>
<b>F</b>	<b>UI Over drawl</b>	<b>13.01</b>	<b>3.38</b>	<b>2.60</b>
<b>G</b>	<b>Renewable Energy Certificates</b>			
1	Solar		12.27	
2	Non-solar		1.43	
	<b>TOTAL POWER PURCHASE COST</b>	<b>1600.43</b>	<b>782.42</b>	<b>4.88</b>

The Hon'ble Commission is requested to approve the power purchase cost as submitted in the above table.

#### Commissions Analysis:

The Power purchase projection made for all the remaining four (4) years appears same looking at the power purchase sources adopted. This could be

due to lack of information on the Power station availability for years beyond FY2023-24. Thus, the licensee had adopted same quantum of energy purchase from each station for other years also without any change in quantum. In reality, the prediction of power purchase quantum beyond ensuing years requirement is not that easy to arrive at. For the same reason, the Commission is also not keen on the power purchase quantum and its cost beyond FY 2023-24. Usually even under MYT regime, the power purchase cost will be derived afresh for each year when the retail supply filing is made to make it more meaningful and relevant rather than quoting hunched figures as a ritual.

Hence, the power purchase quantum and cost projected for FY 2023-24 is approved by the Commission at the same level for adoption in retail supply tariff determination process and the data for other years are just considered on provisional basis subject to their modification in the future filings in that relevant year.

#### **Automatic Pass through of Fuel and Power Purchase Cost Adjustment**

Due to global scenario, the power purchase cost of the thermal power plants have increased sharply this FY. As per the latest MoP rules, the discoms are liable to pay the bills raised by gencos within 45 days else leading to consequences not limiting to regulation of power.

MSPDCL sources power from several gas based TPS from NEEPCO where the APPC has increased by almost 100% since May 2022. In such scenario, MSPDCL is facing working capital issues to pay the bills of the gencos within due date leading to accumulation of power purchase dues.

The MoP vide its letter dated November 21, 2021 has proposed the mechanism for automatic pass through of fuel and power procurement cost citing licensees facing revenue constraints as the corresponding pass through of Fuel and Power Purchase Cost is not done regularly and timely. Timely collection of revenue from consumer would ensure timely payment.

On the same lines, JERC, vide its tariff order for ARR of 2022-23, had explained the mechanism for pass through of Fuel and Power Purchase Cost Adjustment (FPPCA). However, this is not an Automatic pass through and requires the approval of the Commission. This method may lead to delay. It may be changed to provide Automatic pass through in tariff change in costs on account of change in power purchase costs in

accordance with the formula laid down by the JERC. MSPDCL may pass through the change in costs due to change in power purchase costs occur. After giving effect to the pass through, it shall send the relevant papers / calculation sheets to the Commission which shall verify the same and confirm the pass through in 60 days. This shall result in less working capital requirements by the MSPDCL.

**Therefore, in the above context, MSPDCL requests the Commission to frame regulations for Automatic Pass through of Fuel and Power Purchase Cost Adjustment.**

### **Commission Analysis:**

The Licensee may submit the relevant cost details of FPPCA pertaining to FY 2021-22 and 2022-23 to enable the Commission to examine the cost trend and pattern of price variation occurrence to indicate the licensee a suitable price to be levied provisionally for finalisation of FPPCA actual price for final absorption. The data may be communicated within one month's time from the date of issuance of this order. However, the modality to be followed for levy of automatic FPPCA is given at the appropriate chapter in this order itself for adoption with immediate effect.

### **7.7.3 Renewable Purchase Obligations (RPO)**

JERC has issued RPO targets vide its regulation Joint Electricity Regulatory Commission for Manipur & Mizoram (Renewable Purchase Obligation and its Compliance) (First Amendment) Regulations, 2022. The RPO targets for Third MYT Control Period FY 2023-24 to FY 2027-28 are shown in the table below:

***Table 57: RPO targets for Third MYT control period***

<b>Financial Year</b>	<b>Wind RPO</b>	<b>Hydro Power Obligation (HPO)</b>	<b>Other RPO</b>	<b>Total RPO</b>
2023-24	1.60%	0.66%	24.81%	27.08%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%

MSPDCL plans to meet the RPO targets through:

- Procuring Green energy from IEX GTAM market
- Renewable Energy Certificates from IEX at prevailing rates
  - o Solar RECs at Rs 1.68/unit

o Non-Solar REC at Rs 1.00/unit

The table below shows the RPO to be met by MSPDCL through power purchase of RE from IEX GTAM market.

**Table 7.19: RPO Compliance for MYT third control period**

S No	Particulars	Formula	Unit	2023-24	2024-25	2025-26	2026-27	2027-28
1	Energy Sale excl. Inter-State Sale		MU	884.00	960.74	1044.92	1137.28	1238.44
2	Total RPO Target		%	27%	30%	33%	36%	39%
3	Total RE purchase requirement	1*2	MU	239.39	287.36	344.93	408.85	480.64
4	HPO Target		%	1%	1%	1%	2%	2%
5	Hydro power purchase requirement	1*4	MU	5.83	10.38	15.46	20.47	26.63
6	WPO Target		%	2%	2%	3%	4%	5%
7	Wind power purchase requirement	1*6	MU	14.14	23.63	35.11	48.79	64.77
8	Other RPO Target		%	25%	26%	28%	30%	31%
9	Other RE Purchase Requirement	1*8	MU	219.32	253.35	294.35	339.59	389.24
10	Energy Storage purchase obligation target		%	1%	2%	2%	3%	3%
11	Energy Storage purchase requirement	1*10	MU	8.84	14.41	20.90	28.43	37.15
12	Actual hydro power purchase		MU	77.09	77.09	77.09	77.09	77.09
13	Surplus /Deficit in Hydro power purchase	12-5	MU	71.25	66.71	61.62	56.62	50.46
14	HPO achievement	12/1	%	9%	8%	7%	7%	6%
15	Wind power purchase		MU	0.00	0.00	0.00	0.00	0.00
16	Surplus / Deficit in wind power purchase	15-7	MU	-14.14	-23.63	-35.11	-48.79	-64.77
17	WPO achievement	15/1	%	0%	0%	0%	0%	0%
18	Other RE purchase	a+b+c+d+e	MU	47.69	104.69	169.15	239.09	316.18
a	Co-generation		MU	0.00	0.00	0.00	0.00	0.00
b	Small Hydro		MU	0.00	0.00	0.00	0.00	0.00
c	Biomass		MU	0.00	0.00	0.00	0.00	0.00
d	Solar		MU	47.69	104.69	169.15	239.09	316.18
e	Others		MU	0.00	0.00	0.00	0.00	0.00
19	Surplus / Deficit in other RE purchase	18-9	MU	-171.63	-148.66	-125.20	-100.50	-73.06
20	Other RPO achievement	18/1	%	5%	11%	16%	21%	26%
21	Energy Storage Purchase		MU	0.00	0.00	0.00	0.00	0.00
22	Surplus / Deficit in other RE purchase	21-11	MU	-8.84	-14.41	-20.90	-28.43	-37.15
23	Energy Storage Purchase achievement	21/1	%	0%	0%	0%	0%	0%
24	Total RE purchase achievement	12+15+18+21	MU	124.78	181.78	246.24	316.18	393.27
25	Total RPO achievement	24/1	%	14%	19%	24%	28%	32%

**Commission Analysis on Power quantum, cost and RPO Obligation:**

The Commission feels that the power procurement from costly stations are to

be reduced to the bare minimum of contracted procurement obligated quantities only and to buy more energy from power stations whose variable cost is cheaper for minimising this major expenditure component of ARR (i.e., Power purchase cost). Besides, the Commission further directs to limit the energy requirement to are needs and avoid sale of huge Outside State quantum which is always not profitable while disposing the surplus power. That means avoiding transaction involves loss component for each unit sold in IEX.

*During this year 2023-24, the MSPDCL shall endeavour to fully utilise the banked energy stock accumulated up to the end of FY2022-23 in order to minimise the purchase quantity from outside sources and thereby reduce the cost of power to a level lower than the total cost now decided by the Commission as it wants to give freehand to MSPDCL in its procurement process.* Incidentally, upon choosing the banked energy, the overall losses & power costs will tend to fall. The detailed power purchase quantity requirement so arrived by the Commission is also provided below.

**Table 7.20: Commission approved Energy purchases for FY 2023-24 (MU)**

Sl. No.	Energy Source (FY2023-24)	Installed Capacity (MWs)	Share Allocation (MWs)	APR filed & Approved		
				Energy (MU)	Total Cost (Rs Cr)	Avg rate (Rs/kWh)
<b>A</b>	<b>CGS - NEEPCO</b>					
1	Kopili - I HE	200.00	15.03	63.52	8.17	1.29
2	Kopili - II HE	25.00	1.77	4.75	0.83	1.75
3	Khandong HE	50.00	3.35	10.87	2.47	2.27
4	Ranganandi HE Project	405.00	34.40	106.40	25.11	2.36
5	Doyang HE Project	75.00	5.99	12.41	8.44	6.80
6	Assam GBPP	291.00	23.96	129.85	64.28	4.95
7	Agartala GTPP I & II	130.00	10.85	71.43	34.80	4.87
	<b>Sub-total</b>	<b>1176.00</b>	<b>95.35</b>	<b>399.23</b>	<b>144.10</b>	<b>3.61</b>
<b>B</b>	<b>CGS - NHPC</b>					
1	Loktak HEP	105.00	31.74	143.85	53.87	3.74
2	Loktak Free power		12.60	60.91	-	-
	<b>Sub-total</b>	<b>105.00</b>	<b>44.34</b>	<b>204.76</b>	<b>53.87</b>	<b>2.63</b>
<b>C</b>	<b>Other</b>					
1	Baramura GBPP Unit IV and V	42.00	0.00	0.00	-	-
2	OTPC Pallatana Unit I & II	726.00	52.00	306.42	107.68	3.51
	<b>Sub-total</b>	<b>768.00</b>	<b>52.00</b>	<b>306.42</b>	<b>107.68</b>	<b>3.51</b>
<b>D</b>	<b>New Plants</b>					
1	NTPC Bongaigaon- 1,2&3	750	25.825	231.87	153.78	6.63



Sl. No.	Energy Source (FY2023-24)	Installed Capacity (MWs)	Share Allocation (MWs)	APR filed & Approved		
				Energy (MU)	Total Cost (Rs Cr)	Avg rate (Rs/kWh)
2	Para HEP	110.00	9.30	39.79	20.44	5.14
3	Lower Subansiri St-1	500.00	22.00	77.09	38.54	5.00
4	Renewable – Solar			-	-	
5	Renewable – Non-Solar			-	-	
	<b>Sub-total</b>	<b>1360.00</b>	<b>57.13</b>	<b>348.75</b>	<b>212.76</b>	<b>6.10</b>
	<b>Power from all Generation sources</b>	<b>3409.00</b>	<b>248.82</b>	<b>1259.16</b>	<b>518.41</b>	<b>4.12</b>
<b>E</b>	<b>Short-term power purchase</b>					
1	IEX Purchase			50.35	27.89	5.54
2	Banking Returns					
3	UI Over drawl			3.01	3.38	2.60
	<b>Sub-total</b>	<b>0.00</b>	<b>0.00</b>	<b>63.36</b>	<b>31.27</b>	<b>4.94</b>
<b>F</b>	IEX Sales					
<b>G</b>	Banking mode Sales					-
<b>H</b>	UI Under drawl					
<b>I</b>	<b>Supplementary bills</b>			-		-
<b>J</b>	<b>REC Certificates</b>			-	<b>19.24</b>	
<b>K</b>	<b>Late Payment surcharge</b>					
	<b>Grand Total</b>	<b>3409.00</b>	<b>248.82</b>	<b>1322.52</b>	<b>568.93</b>	<b>4.30</b>

Thus, the Average power purchase cost to be adopted at Rs.4.30/kWh for the purpose to fix automatic Fuel Surcharge adjustment price in each month.

The RPO obligation was submitted by the Licensee for all the five years period, but the power purchase quantum is projected uniformly although without any change, but this kind of situation is very rare to happen and the quantum procured will invariably vary from year to year due to various reasons such as non-availability of known sources due to shut-down or R&M maintenance or otherwise it could be due to new cheaper sources of power had been notice in the mid-way to minimise the power purchase cost. Therefore, the Commission feels it appropriate to approve the calculated RPO obligation for FY 2023-24 only and for the rest of the period the calculation may be made afresh to suit the then prevailing situation later based on the targets fixed by the Commission from time to time.

## 7.8. Transmission Charges

### Petitioner's Submission

Transmission charges payable to PGCIL are based on the point of connection charges per MW per month as notified by CERC and the scheduled generation and drawl by the applicable entity. MSPDCL has allocations from various Central Generating Stations and

other generating stations located outside state which determines the transmission charges payable by MSPDCL. The estimated transmission charges for FY 2022-23 have been projected by escalating the same by 5% and so on.

The Intra-State transmission charges have been adopted from the MYT petition of the MSPCL. The SLDC and NERLDC charges have been projected same as that of ARR of FY 2022-23.

**Table 7.21: Transmission Charges for Third Control Period (Rs. Crore)**

S. No	Particulars	2021-22 (Actual)	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
1	Inter-State Transmission Charges	81.22	104.20	109.41	114.88	120.62	126.66	132.99
2	Intra-State Charges	64.20	84.83	107.39	116.93	128.18	138.79	151.56
3	SLDC Charges	0.01	0.87	0.87	0.87	0.87	0.87	0.87
4	NERLDC Charges	0.80	0.71	0.71	0.71	0.71	0.71	0.71
	<b>Total</b>	<b>146.24</b>	<b>190.6</b>	<b>218.4</b>	<b>233.4</b>	<b>250.4</b>	<b>267.0</b>	<b>286.1</b>

#### **STOA Charges**

For procurement and sale of energy through Short-term Open Access, MSPCL vide its **letter no. 4/4/(SLDC)/MSPCL/NOAR/2022 dated 21.06.2022** has informed that it shall be levying STU charges @ Rs. 835/Mwh for all STOA transactions. In this regard, MSPDCL, humbly submits that the revised STOA charges have increased multi-fold times. Earlier, MSPCL levied STU charges in accordance with the CERC regulations 2008 @ Rs. 80/Mwh. This multi-fold increase in STOA charges has increased the financial burden on the stressed resources of MSPDCL. In this regard, our further submission is that:

- The STU charges are determined by the Commission based on long term transmission infrastructure planning taking into consideration all the expenses required in developing the infrastructure and market principles. They are basically determined on the capacity to be made available for facilitating the long-term open access.
- STU charges are based on the transmission capacity and the Aggregate Revenue Requirement for a particular Financial Year. On the other hand, the STOA charges are only a nominal value as the short-term transmission capacity available cannot be determined beforehand.

In some states, the STOA charges are determined at rates which nominal fraction of the LTOA rates.

**In this regard, considering the above, MSPDCL requests the commission to determine separate charges for LTOA and STOA for MSPCL ARR of 2023-24 as basis for determining both is different.**

**Commission Analysis:**

The Commission now allows Rs.52.56Crs towards MSPCL transmission charges for FY 2023-24 though they are not being actually paid by MSPDCL for their funds but only remitting the subsidy it received from govt of Manipur regularly. In fact, there is no such billing mechanism existed between the two entities till date, hence these charges are to be disallowed, but giving a leeway once again to develop billing mechanism between MSPDCL and MSPCL at the earliest and so the intra-transmission charges are actually being paid by MSPDCL and received by MSPCL unlike the earlier years. In future if the Commission notices it in contrary, no intra-state transmission charges will be from 2024-25 onwards and now it is given as a last chance. The Commission knowingly not considered the MSPCL transmission charges from FY 2024-25 onwards in the above approval.

No separate SLDC charges that can be levied by MSPCL as all the charges incurred are already covered in MSPCL ARR itself. If at all it is to be levied, it shall be basing on SLDC Tariff Order approved by Commission and not otherwise at any cost. The MSPCL can't levy any extra charges on its own accord without Commission's approval. **Therefore, any such charges need not be paid to MSPCL and matter may be brought to the notice of Commission immediately if such need arises.**

With regard to STOA charges, this is not the right forum to represent as this is meant only for Retail Tariff Fixation and the issue may be represented separately with Commission for resolving sooner.

Accordingly, the revised & approved transmission charges by the Commission is as follows:

**Table 7.22: Transmission Charges approved by Commission for 2023-24****(Rs.Crs)**

S.No	Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
1	Inter-State Transmission Charges	109.41	114.88	120.62	126.66	132.99
2	Intra-State Transmission Charges	52.56	Nil	Nil	Nil	Nil
3	SLDC Charges	N.A	N.A	N.A	N.A	N.A
4	NERLDC Charges	0.71	0.71	0.71	0.71	0.71
	<b>Total</b>	<b>162.68</b>	<b>115.59</b>	<b>121.33</b>	<b>127.37</b>	<b>133.70</b>

N.A denotes - Not applicable

**7.9. Operation and Maintenance Expenses****Petitioner's submission**

The Operation and Maintenance (O&M) expenses comprises of Employee Expenses, Repair and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses.

**7.9.1 Employee Expenses**

The Projection for MYT Third Control Period is done by taking 5.72% year on year growth on employee expenses of estimated FY 2022-23 figure. Further, it is submitted that MSPDCL has planned to recruit 600 employees in Group C and Group D in FY 2023-24. The recruitment notification for the same has been issued. Estimated additional cost to be incurred by MSPDCL for disbursing salaries and benefits to the new employees is Rs. 22.35 Cr. The Commission is requested to consider an additional provision of Rs 22.35 Cr. for FY 2023-24.

**Table 7.23: Employee expenses for Third Control Period (Rs. Crore)**

Particulars	2022-23 (Till Sept.)	2023-24 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Total Employee Expenses</b>	36.01	72.02	98.50	104.13	110.09	116.38	123.04

**Commission Analysis:**

The employee cost incurred in FY 2021-22 is amounting to Rs.59.36CRs as per the audited annual account of MSPDCL. But, all of a sudden, this quantum of expenses the employee cost projected at Rs.98.50CRs which amounts to 166 times from the existing level in two years was not felt practical but appears to be very ambitious in the projections attempted by the licensee. Hence the employee cost is taken at

Rs.79.22Cr for 2023-24 which amounts to 133 times from FY 2021-22 figure of employee cost as a base figure for subsequent years of MYT period to make it more reasonable and appropriate to realistic scenario.

Thus, the employee expenses now approved by the Commission for the MYT period is as follows:

**Table 7.24: Employee expenses for Third Control Period (Rs. Crore)**

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
Employee cost	79.22	87.25	97.72	108.45	119.30

### 7.9.2 R&M Expenses

Repair and Maintenance (R&M) Expenses includes all expenditure incurred on the maintenance and upkeep of distribution assets. It includes the expenses on repairs and maintenance of Plant and Machinery, Transformers, Lines, cable network, Vehicles, Office equipment, etc. As per regulations the R&M are projected for Third Control Period by taking an escalation of 5.72% over the estimated figure of FY 2022-23. MSPDCL submits to the Commission that it is important for MSPDCL to incur the R&M expenses as mentioned above in order to maintain and strengthen the system and quality of supply.

**Table 7.25: R&M expenses for Third Control Period (Rs. Crore)**

Particulars	2022-23 (Till Sept.)	2023-24 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
Total R&M Expenses	5.89	11.78	12.45	13.17	13.92	14.72	15.56

MSPDCL requests the Commission to approve the R&M expense without any disallowances as the same is necessary for proper maintenance and strengthening of the system and quality of supply in the region in order to ensure consumer satisfaction.

### Commission Analysis:

The R&M expenses now approved by the Commission for the MYT period at the same level as projected is as follows:

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
R&M Expenses	12.45	13.17	13.92	14.72	15.56

### 7.9.3 A&G Expenses

Administrative and General (A&G) Expenses includes all expenditure incurred in operating a business such as:

- Travel and conveyance expenses
- Consultancy and regulatory fees
- IT services and outsourcing cost
- Office Expenses
- Publication Expenses
- Other administration Expenses
- Telephone
- Hiring of vehicle etc.

As per regulations the R&M are projected for Third Control Period by taking an escalation of 5.72% over the estimated figure of FY 2022-23.

**Table 7.26: A&G expenses for Third Control Period (Rs. Crore)**

Particulars	22-23 (Till Sept.)	2023-24 (Est.)	23-24	24-25	25-26	26-27	27-28
<b>Total A&amp;G Expenses</b>	4.83	9.66	10.21	10.80	11.41	12.07	12.76

#### Commission Analysis:

The A&G expenses now approved by the Commission for the MYT period is as follows:

Particulars	2023-24 (Est.)	2024-25	2025-26	2026-27	2027-28
<b>A&amp;G Expenses</b>	8.95	9.67	10.45	11.29	12.07

The total O&M expenses projected for Third Control Period are shown in the Table below:

**Table 7.27: O&M expenses for Third Control Period (Rs. Crore)**

Particulars	2022-23 (Till Sept.)	2023-24 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Total O&amp;M Expenses</b>	46.73	93.46	121.16	128.09	135.42	143.17	151.36

**Commission Analysis:**

Observing the trend of these expenditure head wise and considering the amounts incurred in FY 2021-22 and that in FY2022-23 the O&M Expenses amounts are reassessed by the Commission and approval is accorded as follows:

**Table 7.28: O&M Expenses approved by the Commission for control period**

Sl. No.	O&M Expenses	2023-24 (Rs.Crs)	2024-25 (Rs.Crs)	2025-26 (Rs.Crs)	2026-27 (Rs.Crs)	2027-28 (Rs.Crs)
1.	Employee Cost	79.22	87.25	97.72	108.45	119.30
2.	R&M Expenses	12.45	13.17	13.92	14.72	15.56
3.	A&G Expenses	8.95	9.63	10.45	11.29	12.07
4.	<b>Total O&amp;M Expenses</b>	<b>100.62</b>	<b>110.05</b>	<b>122.09</b>	<b>134.46</b>	<b>146.93</b>

Thus, the O&M Expenses approved by the Commission after scrutiny is at **Rs.100.62 Crs** for FY 2023-24.

**7.10. Capitalisation Capital Expenditure Plan**

Considering the increase in demand from HT & LT consumers, MSPDCL would be required to undertake significant capital expenditure for system augmentation and strengthening. System augmentation would not only help MSPDCL in handling increased load but would also ensure better quality of supply and network reliability to the consumers. Since, the current T&D loss levels are high, the capital expenditure would help in reduction in the T&D loss level.

MSPDCL under the RDSS scheme has got approval for undertaking capital expenditure of Rs 395 Cr in the following works:

**Table 7.29: Capital Expenditure for Third Control Period (Rs. Crore)**

S. No	Particulars	2023-24	2024-25	2025-26	2026-27
1	11kV feeder bifurcation	4.92	9.83	14.75	19.67
2	Re-conductoring of 11kV line	5.41	10.83	16.24	21.65
3	LTAB Reconductoring	23.26	46.52	69.78	93.04
4	Medium voltage covered conductor	2.04	4.08	6.12	8.16
5	IT/OT works	4.30	8.60	12.90	13.20
	<b>TOTAL</b>	<b>39.93</b>	<b>79.86</b>	<b>119.79</b>	<b>155.72</b>

For Third Control Period, MSPDCL plan to undertake capital expenditure for loss reduction and network modernization works.

It may be noted that funding RDSS, the Central Government is providing 90% grant and

10% is covered through either loan or State Government grant.

#### **Commission Analysis:**

As per the content of present filing, the licensee had proposed Rs.39.93Cr of investments in FY 2023-24 and no loans were proposed in the filing to meet this expenditure. Hence, it is construed that no fresh capital expenditure is required now and it is presumed that anything is needed would be spent from those grants acquired from grant source/Govt of Manipur capital subsidy by MSPDCL.

Consequently, the capitalization of assets worth Rs.39.93 Crs out of the fresh works undertaken will not be allowed for charging depreciation element under regulatory accounting as they were treated as created from grants/govt funds by MSPDCL. If this above amount relates to High Mast Lights cost, then the same may be ignored fully to the extent added.

**Besides, the amount collected from consumer contributions if any possessed by MSPDCL from the inception of its Corporation status from 2014 then it may provide the details to the Commission each year-wise covering up to FY2022-23. However, this kind of direction was also given in FY2021-22 seems not complied with.**

### **7.11. Gross Fixed Assets & Depreciation**

#### **Petitioner's Submission**

The depreciation on the GFA is calculated as per the JERC (MYT) Regulations 2014. As, the assets are funded by 90% grant from the Central Government the net depreciation booked shall be 10% of the calculated depreciation.

For calculating the GFA the figures of the base year have been used, the capital expenditure for a particular year has been capitalized in the next year. On the basis of the projected GFA, the additional depreciation has been calculated. The additional depreciation is on the new assets added to the GFA. The depreciation on the older assets has been calculated as per the accounts and the additional depreciation is added to the same for finding out the final value of the depreciation charged for the financial year.

**Table 7.30: GFA for FY 2023-24 (Rs. Crore)**



S No	Particulars	Opening balance as on 31.03.2023	Additions	Closing balance as on 31.03.2024	Additional Depreciation for FY 2023-24 @ 10% of gross depreciation
1	Plant & Machinery	2,525.43	39.93	2,564.57	0.21
2	Building	68.76		68.75	
3	Furniture & fittings	1.40		1.40	
4	Computer	10.36		10.35	
5	Heavy Equipment	0.94		0.93	
6	Heavy Vehicle	0.94		0.93	
7	Office Equipment	0.09		0.09	
8	Vehicle	6.13		6.13	
9	Land	0.38		0.38	
10	Software	16.44		16.43	
	<b>TOTAL</b>	<b>2,630.86</b>	<b>39.93</b>	<b>2,669.97</b>	<b>0.21</b>

Table 7.31: GFA for FY 2024-25 (Rs. Crore)

S No	Particulars	Opening balance as on 31.03.2024	Additions	Closing balance as on 31.03.2025	Additional Depreciation for FY 2024-25 @ 10% of gross depreciation
1	Plant & Machinery	2,564.57	79.86	2,564.57	0.21
2	Building	68.75		68.75	
3	Furniture & fittings	1.40		1.40	
4	Computer	10.35		10.35	
5	Heavy Equipment	0.93		0.93	
6	Heavy Vehicle	0.93		0.93	
7	Office Equipment	0.09		0.09	
8	Vehicle	6.13		6.13	
9	Land	0.38		0.38	
10	Software	16.43		16.43	
	<b>TOTAL</b>	<b>2,669.97</b>	<b>79.86</b>	<b>2,669.97</b>	<b>0.21</b>

Table 7.32: GFA for FY 2025-26 (Rs. Crore)

S No	Particulars	Opening balance as on 31.03.2025	Additions	Closing balance as on 31.03.2026	Additional Depreciation for FY 2025-26 @ 10% of gross depreciation
1	Plant & Machinery	2,644.22	119.79	2,763.59	0.63
2	Building	68.75		68.75	-
3	Furniture & fittings	1.40		1.40	-
4	Computer	10.35		10.35	-

S No	Particulars	Opening balance as on 31.03.2025	Additions	Closing balance as on 31.03.2026	Additional Depreciation for FY 2025-26 @ 10% of gross depreciation
5	Heavy Equipments	0.93		0.93	-
6	Heavy Vehicle	0.93		0.93	-
7	Office Equipments	0.09		0.09	-
8	Vehicle	6.13		6.13	-
9	Land	0.38		0.38	-
10	Software	16.43		16.43	-
	<b>TOTAL</b>	<b>2,749.62</b>	<b>119.79</b>	<b>2,868.99</b>	<b>0.63</b>

Table 7.33: GFA for FY 2026-27 (Rs. Crore)

S No	Particulars	Opening balance as on 31.03.2026	Additions	Closing balance as on 31.03.2027	Additional Depreciation @ 10% of gross depreciation
1	Plant & Machinery	2,763.59	155.72	2,918.68	0.82
2	Building	68.75		68.75	-
3	Furniture & fittings	1.40		1.40	-
4	Computer	10.35		10.35	-
5	Heavy Equipments	0.93		0.93	-
6	Heavy Vehicle	0.93		0.93	-
7	Office Equipments	0.09		0.09	-
8	Vehicle	6.13		6.13	-
9	Land	0.38		0.38	-
10	Software	16.43		16.43	-
	<b>TOTAL</b>	<b>2,868.99</b>	<b>155.72</b>	<b>3,024.08</b>	<b>0.82</b>

Table 7.34: GFA for FY 2027-28 (Rs. Crore)

S No	Particulars	Opening balance as on 31.03.2027	Additions	Closing balance as on 31.03.2028	Additional Depreciation for FY 2027-28 @ 10% of gross depreciation
1	Plant & Machinery	2,918.68	118.45	3,036.31	0.63
2	Building	68.75		68.75	-
3	Furniture & fittings	1.40		1.40	-
4	Computer	10.35		10.35	-
5	Heavy Equipments	0.93		0.93	-
6	Heavy Vehicle	0.93		0.93	-
7	Office Equipments	0.09		0.09	-
8	Vehicle	6.13		6.13	-
9	Land	0.38		0.38	-

S No	Particulars	Opening balance as on 31.03.2027	Additions	Closing balance as on 31.03.2028	Additional Depreciation for FY 2027-28 @ 10% of gross depreciation
10	Software	16.43		16.43	-
	<b>TOTAL</b>	<b>3,024.08</b>	<b>118.46</b>	<b>3,141.71</b>	<b>0.63</b>

**Table 7.35: Depreciation on GFA for FY 2027-28 (Rs. Crore)**

S. No	Particulars	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
1	Additional Depreciation to be charged	0.82	0.21	0.63	0.82	0.82	0.63
2	Actual Depreciation to be booked	16.26	16.47	17.11	17.93	18.75	19.37
	<b>Total</b>	<b>17.08</b>	<b>16.68</b>	<b>17.74</b>	<b>18.75</b>	<b>19.57</b>	<b>20.00</b>

**Commission Analysis:**

As per the content of this filing, it is construed that the funds utilized for creation are fully spent from borrowed loans from REC. Therefore, the proposed transfer to GFA amounting to Rs.39.93 Crs shown during the year is not eligible for depreciation charge under regulatory accounting ambit. The depreciation amount now approved by the Commission for FY 2023-24 is after considering the capital addition made with the loan fund as follows:

**Table 7.36: - Depreciation for MYT Period approved by the Commission**

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
Depreciation	2.65	3.28	4.10	4.92	5.55

The Commission approves the nominal depreciation of Rs.2.65 Crs calculated at 10% of the Regulatory accounting based allowable depreciation basing on audited accounts of FY 2021-22 onwards with subsequent capital addition made subject to their correlation with audited actuals in respective year.

**7.12. Interest and Finance charges****Petitioners Submission**

The major part of capital expenditure undertaken by MSPDCL is funded by the Central Joint Electricity Regulatory Commission

/ State Government's grants and consumer contribution. However, in addition to these sources of funds, MSPDCL has also taken a significant amount of loan from REC for RAPDRP-B Project and RGGVY project. The repayment of loans during the year has been considered as per actual repayment, and the repayment has been considered proportionately based on the opening loan balance. The details of loans with the computation of Interest on loan are shown in the Table below:

**Table 7.37: Loan Details for FY 2022-23 (Rs. Crore)**

S. No	Particulars	Loan 1 (PFC R-APRDP-A)	Loan 1 (PFC R-APRDP-B)	Loan 3 (REC R-APRDP-B)	DDUJGY	Prepaid Meter Loan (Hill & Valley) (REC)	SLTLL (PFC)	SLTLL (REC)
1	Opening Loan	14.35	353.74	23.93	16.96	63.09	55.74	55.74
2	Addition during the Year					27.30		
3	Repayment during the year							
4	Closing Loan	14.35	353.74	23.93	16.96	90.39	55.74	55.74
5	Average Loan							
6	Rate of Interest	9%	9%	12%	11%	10%	10%	10%
7	Interest & Finance Charges			1.35		4.74	2.70	2.66

**Table 7.38: Interest and Finance Charges for Third MYT Control Period (Rs. Crore)**

S. No	Particulars	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
1	Interest & Finance Charges	6.61	12.72	10.90	9.00	7.00	4.93
2	Outstanding loan at the start		125.33	108.86	91.75	73.83	55.08
3	Loan Repayment		16.47	17.11	17.93	18.75	19.37
4	Closing Loan at the end		108.86	91.75	73.83	55.08	35.70
5	Average Interest Rate		10.87%	10.87%	10.87%	10.87%	10.87%

**Commission Analysis:**

The MSPDCL has obtained various loans in addition to the existing REC Loan-1 & 2 which was existing from 2018-19 onwards. But these loans are eligible for conversion to grants and the stage of its status will only be known on verification with audited accounts only. Of the loans, the MSPDCL is claiming interest only upon REC (RAPDRP Part-B) loan, Prepaid Meter Loan from REC and Street Light Loan from REC throughout the MYT period amounting to

Rs.93.48Crs out of the overall outstanding loan amount of Rs.451.97 Crs as per FY2021-22 Audited accounts. **Thus, it is not preferring interest on the remaining Rs.358.49Crs of outstanding loan for reasons unexplained.**

Interestingly, no interest amount was claimed on any of these three loans in FY21-22 audited accounts approved by Statutory auditor except the interest on Atmanirbha Bharat Loan amounting to Rs.10.08Crs in one year. Does this signify that MSPDCL is not obligated to pay interest to lenders or it could be that MSPDCL is capitalising these amounts? But subsequently, the interest amount calculated for this Atmanirbhar Bharat loan in 2022-23 is only Rs.5.36rs. **Thereby, it is inferred that the amount of Rs.10.08Crs paid in FY 2021-22 includes some outstanding and pending arrears but released in FY2021-22. Hence, the amount in FY 2021-22 is also limited to Rs.5.36Crs.**

In the case of loan obtained for High Mast Street Light was disallowed and disapproved by the Commission in FY 2022-23 itself, but still MSPDCL had not changed its attitude to withdraw claiming Interest amount on it. Besides, it has also obtained additional loan of Rs.4.5532crs making the total loan as Rs.11.0143Crs despite being warned by Commission.

Of the Loans, the loan pertaining to High Mast Light will not be allowed in the Electricity sector as it pertains to MAHUD department to maintain street lights. The responsibility of MSPDCL shall be only to execute the work due to their technical know-how. MSPDCL was advised to make local arrangement of meeting such loan & interest obligation by MAHUD only. The relevant provision categorically stated in the Electricity Supply Code issued by this Commission is appended at the end of FY 2022-23 Tariff order **for reference. This is taken as a serious lapse from MSPDCL and follow up action will be seen sooner.**

As seen from the Audited accounts of FY 2021-22, various loans are being availed from different sources, but P&L account had only claimed finance cost for Atmanirbhar Bharat Loan only and no other interest were seen claimed so far and all others loans are being fully ignored.

**Table 7.39: Interest on Loan for entire MYT Period by Commission (Rs.Crs)**

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
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Interest & Finance Charges	5.22	5.45	4.50	3.49	2.475
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In view of the above, inconsistency in the Interest on debt payments observed, Commission wants to allow only a nominal amount of interest now subject to scrutiny with the actuals incurred based on their audited accounts in future upon their submission. This is done keeping in view to obviate unnecessary burden on Retail consumers in anticipation with presumed figures indicated in filing.

### 7.13. Interest on Working Capital

#### Petitioner's Submission

The interest on working capital is calculated as interest incurred on operation and maintenance expenses for one month, Maintenance & spares @ 1% of the GFA, Receivables equivalent to one (1) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs as per clause 29.4 of the JERC (Multi Year Tariff) Regulations 2014.

The computation of normative Interest on Working Capital (IoWC) for MSPDCL for Third Control Period, is shown in the Table below:

**Table 7.40: IoWC for Third Control Period (Rs. Crore)**

S No	Particulars	Unit	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
1	O & M Expenses one month	Rs. Cr.	7.79	10.10	10.67	11.29	11.93	12.61
2	Maintenance of spares @1% of GFA Escalated by 6%	Rs. Cr.	27.89	28.30	29.15	30.41	32.06	33.30
3	Receivable one month	Rs. Cr.	42.96	46.44	50.23	54.39	58.95	63.93
4	<b>Less:</b> Total Security Deposit							
5	<b>Net WC requirement</b>	Rs. Cr.	78.63	84.84	90.05	96.09	102.93	109.84
6	Interest Rate	%	12.30%	13.45%	13.45%	13.45%	13.45%	13.45%
	<b>Interest of Working Capital</b>	Rs. Cr.	9.67	<b>11.41</b>	<b>12.11</b>	<b>12.92</b>	<b>13.84</b>	<b>14.77</b>

### Commission's Analysis

As seen from the submission, there were no mention as to the actually availing of any short-term loans for working capital needs. The very purpose of allowing the interest on working capital as a normative is only to reimburse the interest cost involved for running the day to day business of the utility on normative basis instead of going deeper into actuals. But, the MSPDCL is fully dependent upon the Government of Manipur for its day to day funding needs in the form of Grant-in-Aid towards meeting salaries and any other relevant expenses. Therefore, allowing interest on working capital on a notional basis though not actually incurred would only burden the consumers and its withdrawal now has no actual financial impact on MSPDCL. As a matter of principle, it will be disallowed from the claim for having not availing any short-term loans in the financial year henceforward. In Manipur, there are more in number of pre-paid meters, whose revenue will be collected in advance in reality and there is no compelling/pressing need for borrowing short-term loans for utility to run during currency of financial year. The reason as to why the Consumer Security deposit amount resting with the entity is totally ignored while arriving at the IOWC despite fully aware of the regulatory provision. Does this mean as an attempt to claim higher Working Capital Interest somehow?

Eventually, the Commission totally disallows Interest on working capital amount claimed by MSPDCL for entire MYT period.

### 7.14. Return on Equity

#### Petitioner's Submission

As per audited accounts, the RoE is computed on paid up capital of Rs. 10.05 Crore at the rate of 15.50% as stated in clause 26.1 of JERC (Multi Year Tariff) regulations 2014

**Table 7.41: Return on Equity for Third Control Period**

Sl. No	Particulars	Unit	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
1	Avg. Equity	Rs Cr.	10.05	10.05	10.05	10.05	10.05	10.05
2	RoE %	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
3	Return on Equity	Rs Cr.	1.56	1.56	1.56	1.56	1.56	1.56
4	MAT Rate	%	0%	0%	0%	0%	0%	0%
	<b>Net RoE (Grossed up by MAT rate)</b>	<b>Rs Cr.</b>	<b>1.56</b>	<b>1.56</b>	<b>1.56</b>	<b>1.56</b>	<b>1.56</b>	<b>1.56</b>

**Commission Analysis:**

The Commission provisionally approves the return on equity at Rs.1.56 Crs uniformly for all years of MYT filing without considering the Income tax component and the same will be admitted depends upon the incidence of tax on actual basis. In fact, the licensee too had claimed ROE without tax element.

**7.15. Non-Tariff Income****Petitioners Submission**

MSPDCL submits here that the details of Non-tariff income for FY 2022-23 is not available. The Non-tariff income for Third Control Period is projected using escalation factor of 6% on the FY 2022-23 figure and so on.

**Table 7.42: Non-tariff income for Third Control Period (Rs Crore)**

Particulars	2021-22 (Actual)	2022-23 (Est)	2023-24	2024-25	2025-26	2026-27	2027-28
Non- tariff Income	5.74	6.08	6.45	6.84	7.25	7.68	8.14

**Commission's Analysis**

Keeping in view of the huge pending dues amount still to be recovered. The projected Non-Tariff Income towards recovery of revenue dues is not adequate and it shall be still at a higher level than projected based on escalation factor. However, the Commission prefers to enhance it higher figure for FY 2023-24 at the same time the licensee needs to put in best of efforts to levy more of these charges in the process of recovery of pending dues during this financial year for financial viability of the organisation.

Thus, the Commission approves the Non-tariff income at Rs.7.14 Crore starting with FY2023-24 and the values approved are as follows:

**Table 7.43: Non-tariff income approved for Third Control Period (Rs Crore)**

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
Non- tariff Income	7.14	8.25	8.50	8.50	8.50



### 7.16. True-Up surplus adjustments

#### Commission Analysis:

During the FY 2021-22, there is a revenue surplus of Rs.58.32Cr was arrived at by the Commission after due True-Up procedure as per the Regulatory provisions in force. Accordingly, an amount of Rs.19.44Cr being one-third value of surplus is to be clawed back by Commission for passing it on as cost reduction benefit to retail consumers in the ARR determination for FY 2023-24.

In addition, the pending True-Up pertaining to the past years from 2015-16 to 2020-21 was also carried out by the Commission and found that there is a revenue surplus in the past also totalling to Rs.220.67Cr (details are tabulated below year wise). Adopting the Regulation 10.6, one-third ( $1/3^{\text{rd}}$ ) of the noted surplus is now clawed back amounting to Rs.73.5567Cr shall have to be passed on as rebate in the retail tariff over two years period starting from 2023-24. Accordingly, an amount of Rs.36.778Cr per year is adopted as a rebate in FY 2023-24 and FY 2024-25 retail supply ARR tariff determination before arrive at the Net aggregate revenue requirement for those respective years for MSPDCL.

### 7.17. Aggregate Revenue Requirement

#### Petitioner's Submission:

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2022-23 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2022-23, is given in the Table below:

**Table 7.44: Aggregate Revenue Requirement for Third MYT Control Period (Rs. Crore)**

Sl. No	Particulars	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
1	Cost of power purchase	536.70	568.93	615.74	667.26	725.82	782.42
2	Transmission charges	190.61	218.38	233.39	250.38	267.03	286.13
	<i>Inter-State Transmission Charges</i>	<i>104.2</i>	<i>109.41</i>	<i>114.88</i>	<i>120.62</i>	<i>126.66</i>	<i>132.99</i>
	<i>Intra-State Charges</i>	<i>84.83</i>	<i>107.39</i>	<i>116.93</i>	<i>128.18</i>	<i>138.79</i>	<i>151.56</i>
	<i>SLDC Charges</i>	<i>0.87</i>	<i>0.87</i>	<i>0.87</i>	<i>0.87</i>	<i>0.87</i>	<i>0.87</i>
	<i>NERLDC Charges</i>	<i>0.71</i>	<i>0.71</i>	<i>0.71</i>	<i>0.71</i>	<i>0.71</i>	<i>0.71</i>
3	O&M Expenses	93.46	121.16	128.09	135.42	143.17	151.36
	<i>Employee Expenses</i>	<i>72.02</i>	<i>98.50</i>	<i>104.13</i>	<i>110.09</i>	<i>116.38</i>	<i>123.04</i>

Sl. No	Particulars	2022-23 (Est.)	2023-24	2024-25	2025-26	2026-27	2027-28
	<i>A&amp;G Expenses</i>	9.66	10.21	10.80	11.41	12.07	12.76
	<i>R&amp;M Expenses</i>	11.78	12.45	13.17	13.92	14.72	15.56
4	Depreciation	16.26	16.47	17.11	17.93	18.75	19.37
5	Interest on Loan	6.61	12.72	10.90	9.00	7.00	4.93
6	Interest on Working Capital	9.67	11.41	12.11	12.92	13.84	14.77
	<b>Total Cost</b>	<b>853.31</b>	<b>949.08</b>	<b>1017.34</b>	<b>1092.91</b>	<b>1175.61</b>	<b>1259.08</b>
9	Add: RoE	1.56	1.56	1.56	1.56	1.56	1.56
10	Add: Income Tax	0	0	0	0	0	0
11	Add: Truing up gap for past 7 years		61.47	61.47	61.47		
	<b>Total cost</b>	<b>854.87</b>	<b>1012.11</b>	<b>1080.37</b>	<b>1155.94</b>	<b>1177.16</b>	<b>1260.64</b>
12	Less: Non-tariff Income	6.08	6.45	6.84	7.25	7.68	8.14
	<b>Aggregate Revenue Requirement</b>	<b>848.79</b>	<b>1005.66</b>	<b>1073.53</b>	<b>1148.69</b>	<b>1169.48</b>	<b>1252.50</b>
13	Less: Revenue from sale of surplus power	61.18	63.89	63.41	62.83	63.38	63.20
	<b>Net ARR</b>	<b>787.61</b>	<b>941.77</b>	<b>1010.12</b>	<b>1085.87</b>	<b>1106.11</b>	<b>1189.29</b>

### Commission's Analysis

Based on the approved costs Aggregate Revenue Requirement for FY 2023-24 is approved as detailed below:

**Table 7.45: Approved ARR by the Commission for MYT period 20023-24 to 2027-28**

Sl. No	ARR approved - for 3rd MYT	2023-24	2024-25	2025-26	2026-27	2027-28
<b>A</b>	<b>Approved Expenditure</b>	Rs.Crs	Rs.Crs	Rs.Crs	Rs.Crs	Rs.Crs
1	Cost of power purchase	568.93	615.74	667.25	725.82	782.42
2	Inter-State Transmission charges	109.41	114.88	120.62	126.66	132.99
3	Intra-state Transmission charges	52.56	nil	nil	Nil	nil
4	SLDC & NERLDC Charges	0.71	0.71	0.71	0.71	0.71
5	<b>O&amp;M Expenses total</b>	<b>100.62</b>	<b>110.03</b>	<b>122.09</b>	<b>134.46</b>	<b>146.93</b>
	(i) Employee Cost	79.22	87.25	97.72	108.45	119.30
	ii) R&M Expense	12.45	13.15	13.92	14.72	15.56
	iii) A&G Expense	8.95	9.63	10.45	11.29	12.07
6	Depreciation	2.65	3.28	4.10	4.92	5.55
7	Interest on Loan	5.22	5.45	4.50	3.49	2.48
8	Interest on Working Capital					

Sl. No	ARR approved - for 3rd MYT	2023-24	2024-25	2025-26	2026-27	2027-28
9	Bad Debt					
10	Return on Equity	1.56	1.56	1.56	1.56	1.56
	<b>Gross ARR approved (A)</b>	<b>841.66</b>	<b>851.65</b>	<b>920.83</b>	<b>997.62</b>	<b>1072.64</b>
<b>B</b>	<b>Deductions adopted</b>					
11	Non-Tariff Income	7.14	8.25	8.50	8.50	8.50
12	True-Up Surplus of FY 2021-22	9.72	9.72			
13	True-Up Surplus of 6 yrs (from 2015-16 to 2020-21)	36.78	36.78			
14	Efficiency Gains					
	<b>Total Deductions (B)</b>	<b>53.64</b>	<b>54.75</b>	<b>8.50</b>	<b>8.50</b>	<b>8.50</b>
	<b>Net Aggr. Rev. Requirement (A-B)</b>	<b>788.02</b>	<b>796.90</b>	<b>912.33</b>	<b>989.12</b>	<b>1064.14</b>

Commission approves net ARR at **Rs.788.02 Crore** for **FY 2023-24** as against Rs.1005.66 Crore projected by MSPDCL. The detailed break-up of surplus from FY 2015-16 onwards is tabulated below for reference.

Financial year	Surplus amount	2/3rd Share for MSPDCL	1/3rd Share Claw Back
	Rs.Crs	Rs.Crs	Rs.Crs
2015-16	10.07	6.7133	3.3567
2016-17	56.83	37.8867	18.9433
2017-18	31.86	21.2400	10.6200
2018-19	15.05	10.0333	5.0167
2019-20	27.11	18.0733	9.0367
2020-21	79.75	53.1667	26.5833
2021-22	58.32	38.8800	19.4400
<b>G.Total</b>	<b>278.99</b>	<b>185.9933</b>	<b>92.9967</b>

In the above 1/3<sup>rd</sup> surplus, 50% amounting to Rs.46.50Crs is being adjusted in FY2023-24 and the remaining surplus will be adjusted in FY 2024-25 in full and final settlement.

#### 7.18. Revenue at existing tariff

Revenue from sale of power for FY 2023-24 to FY 2027-28 is determined based on the energy sales estimated and category wise tariff prevalent in the State of Manipur, based on the average per unit revenue billed during FY 2022-23. It may be noted that the existing tariff was prevalent in FY 2022-23 from the starting and as such, per unit revenue billed in current year is the most appropriate reference for the existing tariff. The per unit category wise rates in FY 2022-23 has been used for projecting revenue from existing tariff.

The table below summarizes the revenue from sale of power at existing tariff for FY

2022-23 and Third Control Period

**Table 7.46: Revenue at Existing Tariff (Rs. Crore)**

Particulars	2022- 23	2023-24	2024-25	2025-26	2026-27	2027-28
Revenue at existing tariff (Estimated)	515.51	557.26	602.76	652.68	707.38	767.12

### **Commission Analysis:**

The Commission adopts the revenue realization projected by the Licensee as it is due to non-availability of sales data in the requisite format, so as to assess the amount from Commission side. It is also felt that the same will be scrutinized on actual basis and every year revenue calculated by the Commission is always on higher side but their performance is not to the extent of commission's expectations. Therefore, the Commission this time was inclined to adopt their projected revenue value so projected on experimental basis to see the final outcome reflected in the audited annual accounts when done with.

## 8. Tariff determination for FY 2023-24

### 8.1. ARR for FY 2023-24

The aggregate revenue requirement for FY 2023-24 and MYT Third Control Period is summarized below:

**Table 8.1: Aggregate Revenue Requirement (Rs. Crore)**

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
Aggregate Revenue Requirement	1005.66	1073.53	1148.69	1169.48	1252.50

### 8.2. Revenue for FY 2023-24

The Revenue at existing tariff for FY 2023-24 and MYT Third Control Period is summarized below:

**Table 8.2: Revenue at Existing Tariff (Rs. Crore)**

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28
Revenue at existing tariff	557.26	602.76	652.68	707.38	767.12

### 8.3. Revenue gap for FY 2023-24

#### Petitioner's submission

It can be observed that the revenue gap at existing tariff which works out to be Rs. 384.52 Crores for FY 2023-24. This revenue gap may be covered through tariff hike of 20% on an average across all consumer categories and budgetary support from the State Government.

**Table 8.3: Revenue gap and Proposed Revenue (Rs. Crore)**

Sl. No	Particulars	FY 2023-24
1	Annual Revenue Requirement	1005.66
2	Revenue @ Existing Tariff	557.26
3	Revenue from sale of surplus power	63.89
4	<b>Total revenue from sale of power</b>	<b>621.14</b>
5	Revenue Gap / (Surplus)	384.52
6	<b>Additional Revenue from 15% tariff hike</b>	<b>83.59</b>
7	<b>Budgetary support required from the State Government</b>	<b>300.93</b>

#### Commission's Analysis

As per the Commission, the Revenue Gap for FY 2023-24 after considering the possible revenue subsidy from Government is shown below:

**Table 8.4: Revenue Gap after subsidy for FY 2023-24 by the Commission**

Sl. No	Particulars	Rs. Crores
		<b>FY 2023-24</b>
1	Net Aggregate Revenue Requirement	788.02
2	Revenue expected from existing tariff	557.26
3	Revenue from sale of surplus power quantum	63.89
4	Total expected Revenue (2+3)	621.15
5	<b>Unmet Revenue Gap (1-4)</b>	<b>166.87</b>
6	<b>Government Revenue Subsidy (Assured)</b>	<b>300.93</b>
7	<b>Recovery of Gap by Revision of Tariff (5-6)</b>	<b>Nil</b>

Since, the Unmet gap derived is lower than the Government budgetary support of Rs.300.93Crores as indicated in the ARR filing for FY 2023-24, it is observed that there is no need of any tariff revision from the present level of retail tariff. However, the Licensee has contemplated a hike in present tariff rates by 15% to get additional revenue through tariff hike amounting to Rs.83.59Crores. In fact, there is no need to go for any upward tariff revision now.

Any hike in existing tariff would only reduce the Government support assured under Section-65 of the E. Act 2003 for undesired consequences and it would also burden the retail consumers largely.

#### **8.4. Tariff Proposal for FY 2023-24**

##### **Petitioner's submission**

- The total revenue gap for the FY 2023-24 to be covered is Rs. **384.52** Crores. The above ARR gap can be sought to be filled by:
  - a. Tariff Increase
  - b. Budgetary support from the Govt. of Manipur
- In case the entire gap was to be met from Tariff Increase, the average increase in tariff would work out to nearly 100%. It is presumed that this is an unacceptable level of tariff hike, and the realistic tariff in the region needs to form the basis for the proposed maximum increase in tariff, with the balance gap being addressed by one of the other means.
- The MSPDCL has been receiving budgetary support from the Government of Manipur for Plan and Non –Plan Funds. The same support is expected to be provided during ensuing year. Accordingly, out of the gap of Rs. 384.52 Crore, Rs. 300.93 Crores is

proposed to be covered by budgetary support from Government of Manipur. Therefore, the balance revenue gap for the FY 2023-24 will have to be met from tariff increase and other recovery mechanism.

- The provisions of the Section 61 (g) of the Electricity Act, 2003 state that the Appropriate Commission should be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity. In line with the above provision, the National Tariff Policy also states that the tariffs should be within  $\pm 20\%$  of the average cost of supply. However, in the present scenario it shall neither be feasible nor in the larger interest of the population of the State of Manipur to burden those with tariff anyway near to average cost of supply. Considering these limitations, the Tariff proposal has been formulated by MSPDCL with an endeavour to progressively approach to reduce the burden (budgetary support) on the Government of Manipur, without giving any tariff shock to the consumers. Furthermore, attempt has been made to evenly distribute the impact of increase in tariff required to fill the revenue gap left after the subsidy committed by the Government of Manipur within the given constraint of consumer mix in the State.
- MSPDCL has considerably increased quality and duration of power supply throughout the state. This has resulted in increased quantum of power purchase to be done by MSPDCL which has in turn increased average cost of supply. As such MSPDCL proposes to increase Tariff of all the consumers by 15.00% for FY 2023-24 to partially meet the increased cost of supply.

**Table 8.5: Existing Tariff Structure FY 2022-23**

Sl. No	Category and Consumption Slab	Fixed Charges per Month	Energy Charges per month
	<b>LT Supply</b>		
1	<b>Kutir Jyoti</b>	<b>Rs/Connection</b>	<b>Rs/kWh</b>
	All units (upto 45 kWh/3 months)	25	2.10
2	<b>Domestic</b>	<b>Rs/kW</b>	<b>Rs/kWh</b>
(i)	First - 100 kWh/Month	65	5.10
(ii)	Next - 100 kWh/Month	65	5.95
(iii)	Above 200 kWh/Month	65	6.75
3	<b>Non-Domestic / Commercial</b>	<b>Rs/kW</b>	<b>Rs/kWh</b>
(i)	First - 100 kWh/Month	85	6.55
(ii)	Next - 100 kWh/Month	85	7.25
(iii)	Above 200 kWh/Month	85	7.65

Sl. No	Category and Consumption Slab	Fixed Charges per Month	Energy Charges per month
4	<b>Public Lighting</b>	70	9.60
5	<b>Public Water Works</b>	105	9.80
6	<b>Irrigation and Agriculture</b>	<b>Rs/kW</b>	<b>Rs/kWh</b>
(i)	Agriculture	65	4.55
(ii)	Irrigation (Others)	65	4.55
7	<b>Small Industry</b>	70	5.60
	<b>HT Supply</b>	<b>Rs./kVA</b>	<b>Rs./kVAh</b>
1	<b>Commercial</b>	105	8.90
2	<b>Public Water Works</b>	105	9.60
3	<b>Irrigation and Agriculture</b>		
(i)	Agriculture	105	5.15
(ii)	Irrigation (Others)	105	5.15
4	<b>Medium Industry</b>	105	8.00
5	<b>Large Industry</b>	105	9.10
6	<b>Bulk Supply</b>	105	9.25

Table 8.6: MSPDCL Proposed Tariff Structure for FY 2023-24

Sl. No	Category and Consumption Slab	Fixed Charges per Month	Energy Charges per month
	<b>LT Supply</b>		
1	<b>Kutir Jyoti</b>	<b>Rs/Connection</b>	<b>Rs/kWh</b>
	All units (upto 45 kWh/3 months)	25	2.10
2	<b>Domestic</b>	<b>Rs/kW</b>	<b>Rs/kWh</b>
(i)	First - 100 kWh/Month	80	6.00
(ii)	Next - 100 kWh/Month	80	7.00
(iii)	Above 200 kWh/Month	80	7.80
3	<b>Non-Domestic / Commercial</b>	<b>Rs/kW</b>	<b>Rs/kWh</b>
(i)	First - 100 kWh/Month	100	7.00
(ii)	Next - 100 kWh/Month	100	8.00
(iii)	Above 200 kWh/Month	100	9.00
4	<b>Public Lighting</b>	100	11.00
5	<b>Public Water Works</b>	120	11.50
6	<b>Irrigation and Agriculture</b>	<b>Rs/kW</b>	<b>Rs/kWh</b>
(i)	Agriculture	65	5.25
(ii)	Irrigation (Others)	65	5.25
7	<b>Small Industry</b>	80	6.50
	<b>HT Supply</b>		
		<b>Rs./kVA</b>	<b>Rs./kVAh</b>
1	<b>Commercial</b>	120	10.00
2	<b>Public Water Works</b>	120	11.50
3	<b>Irrigation and Agriculture</b>		
(i)	Agriculture	120	5.25
(ii)	Irrigation (Others)	120	5.25
4	<b>Medium Industry</b>	150	8.50
5	<b>Large Industry</b>	150	9.50
6	<b>Bulk Supply</b>	150	10.00



**Commission's Analysis:**

As ascertained from the revenue gap derived by the Commission, there is no need or necessity to enhance the prevailing retail tariff of FY 2022-23. This is also some extent due to true-up surpluses accrued to MSPDCL to the tune of Rs.92.9967Cr pertaining to True-Ups of 6 years period from 2015-16 to 2020-21 and also in FY2021-22. A 50% of the above amount is considered in FY 2023-24 and the remaining will be considered in FY 2024-25 ARR finalisation depending upon the outcome of the 2022-23 true-up figure.

**8.5. Government Subsidy/ Support**

The Tariff Subsidy support amount to MSPDCL from Government of Manipur is now fixed at **Rs. 300.93Cr** as indicated in the ARR. As seen from the above, it is clear that the revenue from sale of power at existing Tariff leaves an unmet gap of **Rs.166.87Cr** which is far lesser than the subsidy stated and hence, no tariff revision is needed in this year. Consequently, the MSPDCL shall make assiduous efforts to get the required tariff subsidy/ support promptly from Government of Manipur on monthly basis to even out the financial revenue gap.

The Section-65 of the Electricity Act 2003 mandates the State Government to release subsidy amount due to the licensee in advance in each month so as to enable the licensee to implement the subsidized tariffs to their consumers as per existing Subsidized Tariff Schedule placed at **Table-8.5** and revenue amount realizable from various categories is shown at **Table-7.47**. The element-wise detailed calculations of expected revenue from approved (subsidized) tariff are placed at **Annexure-IV** for guidance and reference.

Hence, the State Government should release the above stated annual subsidy amount of Rs.166.87Cr in Twelve (12) equal monthly installments amounting to **Rs.13.9058 Cr** (Rupees Thirteen point nine zero five eight crores only) per month which shall include April 2023 month also. However, in the event of non-receipt of subsidy in any month from the Government, the licensee shall **adopt the applicable full cost tariff schedule (FCTS) placed at Table-8.7, while issuing the monthly energy bill for that relevant month (detail**

revenue calculation from FCT is indicated at **(Annexure-V)**.

A brief summary of Full cost revenue amount of Rs.724.13Crs derived after adjusting revenues expected from Outsides sale of Rs.63.89crs is tabulated below for reference.

**Table 8.7 : MSPDCL Revenue details at Full Cost Tariff for FY 2023-24**

Sl. No.	Category (2023-24)	Energy Sales	(CPU) Avg.Rev	Revenue (Full Cost)
<b>A</b>	<b>LT Supply</b>	<b>MU</b>	<b>Rs./Unit</b>	<b>Rs.Crs</b>
1	KutirJyoti	3.96	5.01	1.98
2	LT Domestic	607.40	7.55	458.36
3	Commercial LT	71.43	9.47	67.62
4	LT Industires Micro/ Small	20.97	9.49	19.89
5	Public Lighting	5.73	9.34	5.35
6	Public Water-Works	1.38	9.64	1.33
7	Irrigation and Agriculture	1.22	7.07	0.86
	<b>LT Supply Sub Total</b>	<b>712.08</b>	<b>7.80</b>	<b>555.41</b>
<b>B</b>	<b>HT Supply</b>			
1	Commercial	23.89	9.82	23.46
2	Medium Industry	4.77	9.81	4.68
3	Large Industry	10.21	9.83	10.03
4	Bulk Supply	103.08	9.83	101.31
5	Public Water-Works	28.97	9.82	28.45
6	Irrigation and Agriculture	1.00	8.01	0.80
	<b>HT Supply Sub Total</b>	<b>171.919</b>	<b>9.81</b>	<b>168.73</b>
	<b>TOTAL (LT &amp; HT)</b>	<b>884.00</b>	<b>8.19</b>	<b>724.13</b>

There can be a situation, where the outstanding subsidy was released by the government after elapse of sometime and thereby the consumers were billed at full cost tariffs (FCT) in any such relevant month or months on such occurrence. Given the situation, the entire excess amount so charged on account of full cost tariff shall have to be reflected as rebate, by the licensee at a time, in the immediate monthly billing cycle being issued to respective consumer soon after receiving of such pending subsidy pertaining to the past period. In case, if the refundable rebate amount exceeds the monthly bill amount to be adjusted, then such excess amount shall have to be carried forward and be adjusted in the following monthly bill/bills to be issued to the such

consumer until full settlement is made through such refunding process.

Lastly, the brief summary of the calculations in support of subsidy amount so arrived at, the average cost of supply and the average revenue realisation details after approved tariff hike in comparison to the MSPDCL ARR filing is tabulated below:

**Table 7.31: Average Cost of Electricity Supply MSPDCL Vs. Commission for FY2023-24**

Sl. No	Particulars	Units	MSPDCL Projected	Commission Approved
1	Net overall ARR	Rs. Cr	1005.66	788.02
2	Sale of surplus power	Rs. Cr	63.89	63.89
3	<b>Net ARR within the state (1-2)</b>	<b>Rs. Cr</b>	<b>941.77</b>	<b>724.13</b>
4	Govt. subsidy/ Support	Rs. Cr	300.93	166.87
5	<b>Net ARR after Govt. subsidy (3 - 4)</b>	<b>Rs. Cr</b>	<b>640.84</b>	<b>557.26</b>
	a) Revenue from existing Tariff	Rs.Cr	557.26	557.26
	b) Additional revenue from Hike	Rs.Cr	83.59	Nil
6	Energy sale within the state	MU	884.00	<b>884.00</b>
7	<b>Average cost of supply (3/6)</b>	Rs/KWH	<b>10.654</b>	<b>8.192</b>
8	Avg. Revn. realisation (subsidy if paid)- (5/6)	Rs/KWH	7.249	6.304
9	<b>Avg. Subsidy per unit - (7-8)</b>	Rs/kWh	<b>3.404</b>	<b>1.888</b>

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## 9. Tariff Principles and Design

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### 9.1. Background

- a. The Commission, in determining the revenue requirement of MSPDCL for the year 2017-18 and the retail tariff, has been guided by the provisions of the Electricity Act, 2003, the National Tariff Policy (NTP), Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by the JERC for M&M. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff. As per these principles the tariff should “Progressively reflect cost of supply” and also reduce cross subsidies “within the period to be specified by the Commission”. The Act lays special emphasis on safeguarding consumer interests and also requires that the costs should be recovered in a reasonable manner. The Act mandates that tariff determination should be guided by the factors, which encourage competition, efficiency, economical use of resources, good performance and optimum investment.

The latest NTP, notified by Government of India in January 2016, provides comprehensive guidelines for determination of tariff as also working out the revenue requirement of power utilities. The Commission has endeavored to follow these guidelines as far as possible.

- b. The NTP mandates that the Multi-Year-Tariff (MYT) framework be adopted for determination of tariff from 1st April 2006. Accordingly, the MSPDCL has filed petition for determination of ARR for to FY 2020-21 with reliable data.
- c. The mandate of the NTP is that tariff should be within plus / minus 20% of the average cost. It is not possible for the Commission at this stage to lay down the road map for reduction of cross subsidy within  $\pm 20\%$  mainly because of consumers’ low paying capacity and relatively high cost of power. However, in this tariff order an element of performance target has been indicated by setting target for distribution loss reduction and increasing sales volume during FY 2018-

19. The improved performance, by reduction of loss level, and increase in sales will result in substantial reduction in average cost of supply. The existing and proposed tariffs of MSPDCL are two-part tariff. The Commission has considered for a nominal increase in tariff in view of the low paying capacity in the State.

**d. Clause 8.3 of National Tariff Policy lays down the following principles for tariff design:**

- (i) In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per Month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.
- (ii) For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify the roadmap, within six Months with a target that latest by the end of the year 2018-19 that tariffs are within  $\pm 20\%$  of the average cost of supply. The road map would have intermediate milestones, based on the approach of a gradual reduction in cross subsidy. For example, if the average cost of service is Rs.3 per unit, at the end of year 2015-16, the tariff for the cross subsidized categories excluding those referred to in para-1 above should not be lower than Rs. 2.40 per unit and that for any of the cross-subsidizing categories should not go beyond Rs.3.60 per unit.
- (iii) While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. The tariff for agricultural use may be set at different levels for different parts of the State depending on the condition of the ground water table to prevent excessive depletion of ground water.

- e. Regulation 16 of JERC for M&M (Terms and Conditions for Determination of Tariff) Regulations specifies.

- (i) The cross subsidy for a consumer category means the difference between the average per unit rate based on tariff schedule of the Commission for that Category and the combine average cost of supply per unit expressed in percentage terms as a portion of the combined average cost of supply.
  - (ii) In the first place, the Commission shall determine the tariff, so that it progressively reflects the combined average cost of supply of electricity and also reduce cross-subsidies within a reasonable period. In the second phase, the Commission shall consider moving towards category wise cost of supply as a basis for determination of tariff.
- f. The Commission has considered special treatment to Kutir Jyoti connections and agricultural sector. It has also aimed at raising the per capita consumption of the State from 100 kwh in 2010-11 to 162 kWh in 2014-15 and 300 kWh by the end of 2018-19. The Commission endeavors that the tariffs progressively reflect cost of supply in a shortest period and the Government subsidy is also to be reduced gradually. The tariffs have been rationalized with regard to inflation, paying capacity of consumers and to avoid tariff shock.

## **9.2. Tariffs Proposed by the MSPDCL and Approved by the Commission**

### **a) Existing & Proposed by MSPDCL**

MSPDCL in its MYT tariff petition from FY 2023-24 to Fy 2027-28 has proposed for revision over existing retail tariff for FY 2023-24 to various categories of consumers to earn additional revenue to meet the expenses partly.

The MSPDCL has proposed tariff revision as indicated in table-9.1 below. The proposed increase in tariff by the MSPDCL would result in an overall increase in revenue is about **15.00%**

Table 9.1: Existing and Proposed Tariff for FY 2023-24 by MSPDCL

Sl. No.	Consumer Category	Existing Tariff (2022-23)		Proposed Tariff (2023-24)	
		Fixed Charges	Energy charge	Fixed Charge	Energy Charge
	<b>LT Supply</b>	(Rs./kW/PM)	Rs/kWh/PM	(Rs./kW/PM)	Rs/kWh/PM
1	<b>Kutir Jyothi</b>				
	All units (15kWh/PM)	25 (Connection)	2.10	25 (Connection)	2.10
2	<b>Domestic</b>				
i	0-100 kWh/month	65	5.10	80	6.00
ii	101-200 kWh/month	65	5.95	80	7.00
iii	Above 200 kWh/month	65	6.75	80	7.80
3	<b>Commercial</b>				
i	1-100 kWh/month	85	6.55	100	7.00
ii	101-200 kWh/month	85	7.25	100	8.00
iii	Above 200 kWh/month	85	7.65	100	9.00
4	Public Lighting System	70	9.60	100	11.00
5	Public Water works	105	9.80	120	11.50
6	a) Agriculture	65	4.55	65	5.25
	b) Irrigation (others)	65	4.55	65	5.25
7	Small Industry	70	5.60	80	6.50
	<b>HT Supply</b>	Rs/kVA/PM	Rs/kVAh/PM	Rs/kVA/PM	Rs/kVAh/PM
1	Commercial	105	8.90	120	10.00
2	Public Water works	105	9.60	120	11.50
3	a) Agriculture	105	5.15	120	5.25
	b) Irrigation (others)	105	5.15	120	5.25
4	Medium Industry	105	8.00	150	8.50
5	Large Industry	105	9.10	150	9.50
6	Bulk Supply	105	9.25	150	10.00

**b) Category Wise Tariffs approved by the Commission**

The Commission approved tariff categories/sub-categories are given below. The un-metered supply includes consumers not provided with energy meters. Unmetered supply will be billed based on assessed consumption arrived as per JERC for M&M (Electricity Supply Code) 2013 at the relevant rates of metered Tariff of the respective categories. **For HT Connections billing shall be done on KVAH instead KWH in the case of energy charges also by licensee which was problem was there even in the last year FY 2022-23.**

**c) Approved applicable Tariff for FY 2023-24 by the Commission**

No revision to the existing tariff is considered by the Commission for FY 2023-24

and same tariff as existing for FY 2022-23 is adopted without any change.

**Table 9.2: Category wise Tariffs Approved by the Commission for FY 2023-24**

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW/kVA/PM)	Energy Charges (Rs./kWh or kVAh)
	<b>LT SUPPLY</b>		
<b>1</b>	<b>Kutir Jyoti</b>	<b>Rs./Connection</b>	<b>Rs./kWh</b>
	All units (Upto 45 kWh/ 3 Months)	25	2.10
<b>2</b>	<b>Domestic</b>	<b>Rs./kW</b>	<b>Rs./kWh</b>
	(i) First - 100 kWh/Month	65	5.10
	(ii) Next 100 kWh/Month	65	5.95
	(iii) Above 200 kWh/Month	65	6.75
<b>3</b>	<b>Non-Domestic/Commercial</b>	<b>Rs./kW</b>	<b>Rs./kWh</b>
	(i) First - 100 kWh/Month	85	6.55
	(ii) Next 100 kWh/Month	85	7.25
	(iii) Above 200 kWh/Month	85	7.65
4	Public Lighting	70	9.60
5	Public Water Works	105	9.80
6	Irrigation & Agriculture		
	a) Agriculture (Individual)	65	4.55
	b) Irrigation (others)	65	4.55
7	Cottage & Small Industry	70	5.60
	<b>HT SUPPLY</b>	<b>(Rs./kVA)</b>	<b>(Rs./kVAh)</b>
1	Commercial	105	8.90
2	Public Water Works	105	9.60
3	Irrigation & Agriculture		
	a) Agriculture (Individual)	105	5.15
	b) Irrigation (others)	105	5.15
4	Medium Industry	105	8.00
5	Large Industry	105	9.10
6	Bulk Supply	105	9.25

**Note: The above table depicts fixed and energy charge category wise only. Detailed Charges description are given in the tariff schedule Appended.**

**d) Approved Full Cost Tariff**

With the approved ARR for FY 2023-24, the Commission also works out the average revenue realization is at **Rs.8.19/kWh based on existing tariff without any changes**. In the event of non-receipt of monthly subsidy in advance in any month from the State Government, the Commission directs to adopt charging full cost tariff (FCT) to all those consumers for whom the subsidy not received is tabulated below:



**Table 9.3: Category wise Full Cost Tariff (without Subsidy) for FY 2023-24 as approved by the Commission**

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW/kVA/pm)	Energy Charges (Rs./kWh or kVAh)
	<b>LT SUPPLY (FCT)</b>		
1	<b>Kutir Jyoti</b>	<b>Rs./Connection</b>	<b>Rs./kWh</b>
	All units (Upto 45 kWh/ 3 Months)	Rs.25	3.95
2	<b>Domestic</b>	<b>Rs./kW</b>	<b>Rs./kWh</b>
	First - 100 kWh/Month	65	6.35
	Next 100 kWh/Month	65	7.41
	Above 200 kWh/Month	65	8.40
3	<b>Non-Domestic/Commercial</b>	<b>Rs./kW</b>	<b>Rs./kWh</b>
	First - 100 kWh/Month	85	7.51
	Next 100 kWh/Month	85	8.32
	Above 200 kWh/Month	85	8.78
4	Public Lighting	70	9.16
5	Public Water Works	105	9.23
6	a) Agriculture (Individual)	65	6.83
	b) Irrigation (Others)	65	6.83
7	Small Industry	70	8.67
	<b>HT SUPPLY (FCT)</b>	<b>(Rs./kVA)</b>	<b>(Rs./kVAh)</b>
1	Commercial	105	7.40
2	Public Water Works	105	8.04
3	a) Agriculture (Individual)	105	6.74
	b) Irrigation (Others)	105	6.74
4	Medium Industry	105	7.61
5	Large Industry	105	7.24
6	Bulk Supply	105	8.24

**Note:** Fixed charge is per kW of contracted load for LT supply except kJ while in case of HT Supply, it is per kVA of Billing Demand. Energy charge is per kWh for LT supply and per kVAh for HT supply and for LT high value services provided with MDI meters. The above table depicts fixed and energy charge only. However, Tariff Charges description in detail are given under the Tariff Schedule chapter Appended.

**Note:** In addition, the abstract of Category-wise Full Cost Tariff (FCT), Subsidised Tariff and the Subsidy allocation to each consumer category is appended as **Annexure-VI** at the end of this order for quick reference.

**e) Miscellaneous Charges and Important Conditions of Supply**

The detailed Tariffs including rates for un-metered categories of consumer,

miscellaneous charges and Important Conditions of Supply furnished by MSPDCL are examined and approved as given in the **Tariff Schedule in the Appendix**.

As per Electricity Act, 2003, electricity supply shall not be given without meters. Commission is also regularly giving directives in this regard. Therefore, the MSPDCL shall not release any new connections without meters which is very serious deviation. In next tariff order no unmetered tariff will be allowed.

## 10. Wheeling Charges for FY 2023-24

### 10.1. Background

MSPDCL has not proposed its wheeling charges for FY2023-24. The MSPDCL is not maintaining separate accounts for the distribution wire business and retail supply business. So, the ARR of the wheeling business is arrived at as per the following matrix.

**Table 10.1: Allocation matrix**

Sl. No.	Particulars	Wire business	Retail Supply business
1	Power purchase cost	0%	100%
2	Inter-State transmission Charges	0%	100%
3	Intra-State Transmission Charges	0%	100%
4	NERLDC Charges	0%	100%
5	Employee cost	60%	40%
6	R & M expenses	90%	10%
7	Adm. & General Expenses	50%	50%
8	Depreciation	90%	10%
9	Interest & Finance Charges	90%	10%
10	Interest on working Capital	10%	90%
11	Provision for bad debts	0%	100%
12	Income tax	90%	10%
13	Return on equity	90%	10%
14	Contribution to contingency reserves	100%	0%
15	Non-tariff Income	10%	90%

### 10.2. ARR for wheeling business projected by MSPDCL

**Table 10.2: ARR for Wires Business for FY 2023-24 projected by MSPDCL**

Sl. No.	Particulars	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
A	Expenditure	Rs.Crs	(%)	(%)	Rs.Crs	Rs.Crs
1	Cost of power purchase		0%	100%		
2	Inter-State Transmission charges		0%	100%		
3	Intra-State Transmission charges		0%	100%		
4	NERLDC Charges		0%	100%		
5	O&M Expenses					
	<i>Employee Expenses</i>		60%	40%		
	<i>Repair &amp; Maintenance Expenses</i>		90%	10%		
	<i>Administrative &amp; General Expenses</i>		50%	50%		

Sl. No.	Particulars	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
6	De	No proposal was received from MSPDCL on Wheeling Charges for FY 2023-24 in their MYT Tariff petition.				
7	Int					
8	Int					
9	Pro					
	Tot					
<b>B</b>	Add					
	Add: Income Tax		90%	10%		
	<b>B: Total</b>					
<b>C</b>	<b>Total ARR: A+B</b>					
<b>D</b>	<b>Less (Non-Tariff Income)</b>		10%	90%		
	<b>Sub-total (D)</b>					
	<b>Net Aggregate Revenue Requirement (C-D)</b>					

The proposed Wheeling Charges for FY 2023-24 have been computed based on the methodology adopted by the Hon'ble Commission for determining the Wheeling Charges in the MYT Order dated March 12, 2018, as shown in the Table below:

**Table 10.3: ARR for Wires Business for FY 2023-24 projected by MSPDCL**

Sl. No	Particulars	Units	Amount
1	ARR for Wires Business	Rs. Crore	
2	Energy available at Distribution periphery	MU	
3	<b>Wheeling Charges</b>	<b>Rs/kWh</b>	

Thus, MSPDCL proposes Wheeling Charges of Rs. **Nil per kWh** for Open Access transactions in the State of Manipur.

### Commissions Analysis

ARR for wheeling business arrived based on approved ARR and methodology vide Table 10.1 supra is as detailed in table below.

**Table 10.4: ARR of wheeling business approved by the Commission for FY 2023-24**

Sl. No.	Particulars	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
A	Expenditure	Rs.Crs	(%)	(%)	Rs.Crs	Rs.Crs
1	Cost of power purchase	568.93	0%	100%	0	568.93
2	Inter-State Transmission charges	109.41	0%	100%	0	109.41
3	Intra-State Transmission charges	52.56	0%	100%	0	52.56
4	NERLDC Charges	0.71	0%	100%	0	0.71
5	O&M Expenses	<b>100.62</b>			<b>63.21</b>	<b>37.41</b>
	<i>Employee Expenses</i>	79.22	60%	40%	47.53	31.69
	<i>Repair &amp; Maintenance Expenses</i>	12.45	90%	10%	11.21	1.25
	<i>Administrative &amp; General Expenses</i>	8.95	50%	50%	4.48	4.48
6	Depreciation	2.65	90%	10%	2.39	0.27
7	Interest on Loan	5.22	90%	10%	4.7	0.52
8	Interest on Working Capital	0	10%	90%	0	0
9	Provision for bad debts	0	0%	100%	0	0
	<b>Total Cost</b>	<b>840.10</b>			<b>70.30</b>	<b>769.80</b>
B	Add: Return on Equity	1.56	90%	10%	1.40	0.16
	Add: Income Tax	0	90%	10%	0	0
	<b>B: Total</b>	<b>1.56</b>			<b>1.40</b>	<b>0.16</b>
C	<b>Total ARR: A+B</b>	<b>841.66</b>			<b>71.71</b>	<b>769.95</b>
D	<b>Less (Non-Tariff Income)</b>	7.14	10%	90%	0.71	6.43
E	<b>Less: FY2021-22 True-up Surplus</b>	9.72		100%	0	9.72
F	<b>Less: Past six year True-Up</b>	36.78		100%	0	36.78
	<b>Sub-total (D to F)</b>	<b>53.64</b>			<b>0.71</b>	<b>52.93</b>
	<b>Net Aggregate Revenue Requirement (C-D-E-F)</b>	<b>788.02</b>			<b>70.99</b>	<b>717.03</b>

**10.3. Wheeling Tariff**

The wheeling tariff has been calculated on the basis of the ARR for wheeling business and total energy sold as detailed in table below:

**Table 10.5: Wheeling Tariff approved by the Commission for FY 2023-24**

Sl. No.	Particulars	Unit	Amount
1	ARR for wheeling function	Rs/Crore	70.99
2	Energy available at Distribution periphery	MU	1088.89
3	Wheeling tariff	Rs/kWh	0.6519

The Commission approves wheeling charge at Rs. 0.6519/kWh for FY 2023-24 as against zero projected by MSPDCL.

## **11. Directives**

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### **11.1. General**

While examining the information and data contained in the Tariff Petition for FY 2021-22, it is observed that the computation and compilation of the data have been done based on assumptions only and as a result, there has been difficulties in finalization of the ARR and determination of retail tariff also. The above observation itself substantiates the fact that the administrative, technical and commercial performances of the MSPDCL require substantial improvement within a specified time frame.

Similar situation was noticed in the ARR & Tariff petition for the FY 2021-22. The Commission had observed that while there is ample scope for reducing cost and increasing efficiency in the operation of the department, serious efforts appear to be lacking. It is in the above context that certain directives were given in the earlier Tariff Orders of which some were fully complied with. The Commission expected that MSPDCL would take prompt action on the directives and monitor their implementation. Unfortunately, action is yet to be taken on most of the important directives, which could make significant difference to operational efficiency and cost. In some cases, action has no doubt been initiated, but overall seriousness with which the directives were issued by the Commission does not appear to have been realized by the MSPDCL.

In the above background, the Commission is constrained to repeat the directives which have not been fully complied with and also specific new directives are added.

### **BALANCE DIRECTIVES ISSUED**

#### **Directive 2: Annual Statement of Accounts**

MSPDCL was directed to prepare separate annual accounts statements such as balance sheet, profit and loss Account and relevant schedules and statements every year for regulatory purpose and submit to the Commission after duly getting them audited. MSPDCL should file next ARR tariff petition along with true up petition base on audited annual accounts figure for the years from 2015-16, 2016-17 and 2017-18. Their commission shall no longer entertain provisional true up.

Commission will no longer entertain provisional true up in the next tariff petition without the submission of the Audited annual accounts in full shape. The delay in submission of true-up will cost the Licensee to forego the entitlement to claim for additional period cost due to inflation for the true-up delay.

**Compliance Status**

MSPDCL has completed the audited annual account statements up to FY 21-22 and submitted the same to the Commission along with the true up petitions for FY 15-16 to FY 20-21 as well as the MYT petition of FY 23-24 to FY 27-28 which includes the truing-up of FY 21-22. There was a delay in finalization and auditing of account statements due to various reasons like lack of capacity in streamlining of accounting processes etc. But now MSPDCL has streamlined its accounting processes to a great extent and the audited reports are up to date till now. From now, MSPDCL shall submit annual true up petitions on time.

**Comment of the Commission**

Directive is treated as complied with and dropped.

**Directive 3:****Maintenance of Asset & Depreciation Registers**

MSPDCL was directed to update the asset register and submit to the Commission soon.

**Compliances:**

The details of assets are provided as part of the annual accounts and its audit process. However, the detailed work of preparation of asset register is a voluminous work which requires separate funds for appointment of a consultant who can take up work of physical verification of assets, GIS mapping and consolidation of detailed asset data in an asset register format. Due to lack of funds, MSPDCL is not able to take up this work. The Commission is requested to allocate some budget in the tariff order for undertaking this voluminous work.

**Commission's Comments**

It is the bounden duty of the Corporate entity to maintain these asset & depreciation registers and for which they cannot make a feigning reply attributing it to lack of funds and hence they are unable to maintain the important registers. But, in the recent True-

Up made for the period from FY2015-16 to 2020-21, there appears MSPDCL is possessing a surplus amount of Rs.220.67Cr which also includes the unpaid MSPCL Transmission charges from 2015-16 but recovered from the retail consumers. Is that this surplus amount is not sufficient to maintain the so-called assets & Depreciation registers by engaging consultants for this purpose. The reply appears to have given in a routine and casual way and with no intent to accomplish this directive. Requesting the Commission to allot some fund for this purpose is baseless and irrelevant.

If this situation is allowed to be continued by MSPDCL in this fashion, the Investment CAPEX, fresh Capitalisation and Depreciation & Return on Equity claims will not be considered for all the ongoing ARR finalisation till such time this information which is ready in full shape is kept in abeyance intentionally by Licensee. *The deadline for submission is now left to the Licensee decision.*

**However, the directive is treated as not complied with.**

**Directive 4:**

**Management Information System (MIS)**

MSPDCL was directed to take appropriate steps to build up credible & accurate database and management information system (MIS) and regularly update the same for future record and reference. Arrangement may also be made for “On-line Payment” and “Payment through Bank” of the electricity bills.

**Compliances:**

MSPDCL is preparing performance related information in a monthly basis which is being used by the management of MSPDCL and the State Government for periodic review and performance management. However, due to lack of IT systems like ERP, MSPDCL lacks a strong backbone for capturing of accurate information and one stop solution for maintenance of the information. MSPDCL plans to implement ERP system under the RDSS scheme of Government of India. In past also, MSPDCL has tried to implement ERP system but the bid process management was not successful due to lack of participation and limited funds etc. However, the online payment portal for pre-paid recharge is already active, where payments can be done through electronic wallets and data for revenue billed and collected is present.



**Commission's Comments**

MSPDCL must make assiduous effort to implement ERP system under the RDSS scheme of Govt of India in order to have robust IT system to capture and accurate information on the performance of the utility. Attributing the failure to achieve the object due to lack of funds is not acceptable by the Commission, as there is about Rs.220.67Cr of surplus funds lying with the organisation which is a sumptuous amount to carry out the ERP system implementation without any hinderance. **Thus, the directive is treated as uncompiled and it is still in force.**

**Directive 5:****Revenue Arrears**

MSPDCL was directed to assess year-wise Revenue Arrears due from consumers and submit a report by 30th September, 2011 to the Commission. The MSPDCL was also further directed to initiate action to collect/ liquidate the arrears.

Through prepaid meters future accumulation of fresh arrears can be arrested. At present we are in Post- paid meters' usage stage. In the directive, it was requested to **submitted category wise year wise arrears due at a point of time say as on 31.03.2018.** This may be reported by 30.06.2019.

**Compliances:**

A summary of consumer bill outstanding is as follows:

<b>For the year ending</b>	<b>Dues amount (Rs.Crs)</b>
As on 01.02.2014	431.12
31.03.2014	425.72
31.03.2015	437.47
31.03.2016	403.37
31.03.2017	427.48
31.03.2018	452.32
31.03.2019	472.41
31.03.2020	494.65
31.03.2021	544.83
31.03.2022	602.00

**Commission's Comments**

The Category-wise and year-wise arrears details were called for was not submitted to the Commission so far, though the same information was directed for submission **on or before 31<sup>st</sup> March 2018**. The reply doesn't seem addressing this issue context. The reply appears casual in nature without any seriousness. The latest Revenue arrear dues as on 31.03.2021 and the amounts collected quarter-wise during FY 2019-20, 2020-21 and 2021-22 needs to be submitted to the Commission without fail or any plausible reason on or before 30<sup>th</sup> June 2023. The information provided, do not contain the category wise arrears (including Government departments etc.) and had just added information from 2019 onwards which is not of much relevance.

**This directive is not dropped and it is still to be complied.**

**Directive 8:****Sale of Power Outside the State**

MSPDCL was directed to ensure that only surplus power be sold under UI sales after fully meeting the State's requirement without any stagnation of supply in the State. This may be ensured strictly.

The average power purchase cost in Rs.6.84/kWh during FY 2017-18. While the surplus power of 225.71 MU but not 207.74 MU was sold at an average cost of Rs.2.438/kWh during FY 2017-18 by incurring loss in every unit sold. Instead, had the power drawn to the actual requirement by proper planning this type of loss can be avoided.

Therefore, this practice of selling units at loss be discontinued forthwith. The loss on account of this surplus power sell cannot be passed on to the consumers partially, though Government subsidy is also absorbing to a greater extent. In future, the Commission will flag this kind of loss transactions and would disallow to pass it on to consumers from next year tariff determination.

**Compliances:**

Due to improvement in the UI mechanism, the Power purchased under UI decreased from 33.58 MU in FY 2016-17, 6.02 MU in FY 2017-18 and 16.57 MU in 2018-19, 12.96 MU in FY 20-21 and 12.87 Mus in FY 21-22 (UI overdrawal).

Further, sale of surplus power on IEX has been reduced from 207.74 MU in FY 2017-18

to 130 MU in 2018-19, 111.41 MU in FY 20-21 and 117.65 MU in FY 20-21. **The total power sold outside the state in IEX is less than 10% of the total power purchased.**

It is submitted that the load curve of the state is not flat and the power demand varies from time to time. The evening peak of 1800- 2100 hours faces a surge peak whereas the off-peak night hours of 2300-500 hours faces a huge slump in power, which is similar curve in most states. The states consumption is varying which is more in winter than other seasons. Also, the availability is fluctuating with power availability in monsoons much higher from hydro plants than the lean season of winter.

MSPDCL is now managing the variability by banking the electricity with trader when demand is low and CGPs are available. During winter season when demand is more than availability from CGPs the banked energy available with other utilities is used. At times, MSPDCL is constrained to take power from the CGS when the plants are operating at technical minimum or due to water height in dams, the Hydros have to be operated but the demand is not present.

As such, the outside state sales cannot be completely done away with. However, MSPDCL tries to limit the outside state level to close to 10% as done till now. It is requested that this directive may be reviewed and dropped.

#### **Commission's Comments**

In future, the Commission will flag this kind of loss transactions and would disallow to pass it on to consumers from next year tariff determination if felt abnormal. Therefore, the dropping of this directive now would not precluded from imposing the same again if felt needed.

#### **Directive 10: Unauthorized Connection/Theft of power Cases & Directive 11: Detailed Survey & Investigation**

In the above two directives, the Commission had directed to carryout detailed survey & Investigation to

1. Identify unauthorized connections.
2. Physical verification of the connected load of all connections.
3. Physical verification of the categories under which the consumers are availing supply.
4. Verification & updating of names of the consumers etc. and 5. Regularize 30000

unauthorized consumers annually. Unauthorized connections shall be brought under billing once they are identified and regularized but not by prepaid metering plan. In either case physical verification of connections is only remedy.

**Compliances:**

The unauthorized connections and connected load are being taken care of under the pre-paid metering plan. MSPDCL has already achieved close to 90% pre-paid metering in Manipur. AB Cables are being used in LT supply to avoid the power theft in theft prone areas.

Physical verification drive shall be conducted and MSPDCL will intimate the same to the Commission.

**Commission's Comments**

The directive will be in force till such time the comprehensive report on theft and pilferage rampancy status is submitted upon physical verification drive to be conducted by MSPDCL. Of late, Commission had noticed the revenue under collection in FY 2021-22 to the extent of above Rs.100Cr, which could be due to improper data of contracted load of consumers and unauthorised or existence of unbilled consumers still prevalent in the State causing lower revenue collection than the expectation by the Commission for the quantum of energy sales achieved in FY 2021-22.

This issue is of some magnitude and of serious nature needing more focused attention to plug the latent loop-holes of chronic nature still prevalent in the revenue collection mechanism.

***This directive will be kept in force to monitor the progress and improvement to be made in future which is measured in terms of revenue collection commensurate with retail energy sales to the satisfaction of Commission.***

**Directive 12:****Replacement of Defective Meters and Installation of Meters to Un-Metered Connections**

MSPDCL was directed to provide meters to all un metered consumers and replace the defective meters within the time frame given in the Commission Order Based on the availability of new energy meters, 100% replacement of No. 24012/2/5/09 – JERC dt

7.1.2011 on 100% metering plan and submit quarterly report regularly.

**Compliances:**

It is submitted that MSPDCL is allotting the New connection to the consumer only after installation of the Meter.

The defective meters are being replaced regularly from time to time. Based on the availability of new energy meters, 100% replacement of defective meters shall be completed. At present, MSPDCL is facing shortages of meter supply due to impact of COVID 19 and surge in demand of meters elsewhere in India

**Commission's Comments**

The reply appears no constructive progress seems to have gained in this matter in the absence of requisite meters in stock since last year 2020-21 Tariff Order finalisation. The report called for on the status is still pending from MSPDCL side, except the descriptive explanation offered as above.

**A report in this regard should be submitted by MSPDCL soon after the issue of this order without any delay latest by end of May 2023.**

**The Directive is treated as still in force.**

**BALANCE DIRECTIVES ISSUED IN FY 2015-16**

**Directive 13: Physical and Financial Status of RAPDRP & RGGVY Schemes**

As per above directive MSPDCL has to submit physical and financial progress of work done and the impact of the works on revenue performance and metering with details of work done, amount of revenue increases etc.

**Compliances**

**\_\_\_\_\_ Pending for want of reply from MSPDCL \_\_\_\_\_**

**Commission's Comments**

No reply was given by the Licensee for this directive, despite commission expressed its displeasure on the cold response in the last year (FY 2022-23) tariff order. Explain, why this be not treated as dis-obedience and Commission to take suitable action for the disobedience.

**Directive 16: Investment Plan and Capping of Capital expenditure**

Annual Investment Plan shall be submitted to the Commission and necessary approval of Commission shall be obtained for all major capital works costing Rs. 5.00 Crore and above before execution of the works. Whether it is own funds or Govt. funds no matter, all capital works costing Rs.5.00 Crore and above shall be submitted to commission for approval.

**Compliances:**

The capital investment plan for MSPDCL has been provided in the MYT petition of MSPDCL for FY 24 to FY 28 as per the data formatsof the Commission.

**Commission's Comments**

The Licensee had not adopted some format of its choice instead of the format stipulated by the Commission in the present MYT submission. The directive was specifically given for obtaining prior approval and mere intimation in MYT filing will not suffice the intention of the Directive in any way. All capital works costing Rs.5.00 crores and above shall have to be submitted to Commission for prior approval before the works are taken up. The source of funding is immaterial.

A report in this regard shall be submitted invariably to the Commission containing the projects under execution by MSPDCL immediately for approval lest the capitalisation of assets and consequential expenditure benefits will be prevented to accrue on those capital investments if noted in future.

**Directive 17:**

Maximum Demand Indicator Meters (MDI) to be provided to all high value connections

**Compliances:**

It is submitted that the prepaid energy meters are already having facility to record the Maximum Demand. The high value connections are having the MD record facility and hence MD recording is taken care of. MSPDCL already has the facility of recording MDI of high value consumers. In this scenario, the directive may be reviewed

**Commission's Comments**

Where is the detailed reply on HVC with MDI which was due on July 2020 and this reply

has no relevance in that context of what has been directed and MSPDCL behaviour is very much deplorable. Mere stating that the MDI is taken care will not suffice in this case. Details of High Value consumers with MDI shall have to be submitted forthwith from the time this order is issued.

**Directive 18:**

As verified from the Tariff Schedule, it is observed that unmetered categories are prevailing in all categories including HT. Continuance of HT connections without meters is highly irregular. As per Electricity Act, 2003 no service connection be released without meter. As such, the MSPDCL is directed to provide HT meters to all unmetered HT connections in the first instance and report compliance by 30.09.2016 positively.

In respect of LT categories, all unmetered connections be provided with meters by 31.03.2017. Progress and providing meters to unmetered connections be reported quarterly indicating category-wise number of unmetered connections at the beginning of the quarter and installed during the quarter and balance to be installed.

Compliance if fixing meters to all unmetered connections be repeated by 30.09.2019 positively.

**Compliance Report:**

In this regard it is submitted that MSPDCL is not allotting any new connection without installation of respective meters. It has planned to cover 100% metering under the RDSS scheme which is expected to be completed by FY 25.

**Commission's Comments**

This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for wage replying.

Metering of all consumers for proper revenue collection is of prime importance for the financial health of MSPDCL. All consumers are to be metered within 6 (six) months without fail.

**The status report on this matter is still awaited by the Commission to know the progress achieved in the field ground reality.** The MSPDCL may put up all its bet efforts sincerely to submit to achieve the metering as it amounts to non-compliance of Section-55 of E.Act 2003 and asking for time upto FY2025to achieve 100% metering is

unacceptable and present status achievement report be submitted for scrutiny forthwith.

#### **DIRECTIVES ISSUED IN FY 2016-17**

##### **Directive 20: In house development of IT enabled system:**

MSPDCL is directed to take steps for development of in-house IT enabled system so that all software issues can be attended/solved departmentally instead of depending on consultants.

##### **Compliance Status**

MSPDCL would like to inform the Hon'ble Commission that there has been progress in the in-house development of IT enabled system in the last one year. Some in-house developed IT platforms are already in operation to improve administrative processes. A few notable accomplishments are listed below.

- powernodue.com: It is a domain which has a database of all the employees along with their connection status. It incorporates a hassle free fast and efficient process of getting no-dues certificate.
- Indent: It is an IT enabled platform which facilitates and streamlines the approval process for despatch from store to field.
- Online prepaid recharge with e-wallets like NPCI Bharat Bill Payment System.

Furthermore, MSPDCL would like to state that it has bought Virtual Private Network and it is being planned to set up a physical server in one year to go digital with all the files available on one electronic platform. All these steps are guided towards making MSPDCL independent with its IT team and reducing dependency on consultants.

The entire software related to billing, payment and collection is now maintained in-house. Any issues, modifications/upgrades are now done in-house in much lesser time comparatively.

The billing system is capable of churning out consumers' billing and payments data as desired to assist in energy audits and is being actively employed for the same.

MSPDCL has also plans to implement ERP system under the RDSS scheme along with installation of necessary hardware, servers as required. After implementation of ERP, MSPDCL process efficiency will increase and will have most of its information in an accurate and reliable database



**Commission's Comments**

The major portion of the above compliance report is a facsimile of last year reply with little additions at the end. This kind of replying by MSPDCL shall be eschewed forthwith. The Commission desires that IT application should be provided in energy audit to reduce AT&C losses. **A report may be submitted in this regard by May 2020 is still awaited and not complied with during FY 2020-21.** Which is still not submitted for reasons not covered in the reply and it appears quiet casual in nature.

The Status reply with reasons for delay in not sending earlier reply is expected by Commission on or before 1<sup>st</sup> May 2023. Mere stating that it is being implemented will no longer serve the purpose.

**Directive 21:****Updation of computerised billing program of power factor and rebate/surcharge**

MSPDCL should up-to-date computerised billing programme to facilitate adoption of power factor rebate/surcharge as indicated in the tariff schedule.

**Compliance Status**

The computerised billing program for power factor rebate/surcharge has been completed. The directive may bedropped.

**Commission's Comments**

**The status report on this matter is still awaited by the Commission to know the progress achieved in the field ground reality. Until such time the Directive will be in force and mere explanation of its achievement will not be considered for dropping.**

**Directive 22:****Installation of meters to all 11 kV feeders and DT's**

MSPDCL should install meters for all 11kV feeder and DT's in all RAPDRP covered towns by 30.06.2016. Sample study should be conducted to know the highest feeder loss and highest DT loss and report be submitted to the Commission by 30.09.2016. Targeted sale (date) by which 100% metering of 11 KV feeders be achieved may be intimated in

the first insistence.

### **Compliance Status**

It is submitted that under RAPDRP Part-A 72 nos. of 11KV Feeder meters and 925 nos. of DT meters were installed.

100% DTC metering could not be completed due to non-availability of energy meters and the same will be completed under the RDSS scheme which mandates completion of 100% metering at feeder, DT and consumer level. The RDSS scheme is under implementation and likely to be completed by FY 25.

### **Commission's Comments**

The details of 11kV feeders, where the meters are installed may be reported along with monthly energy transmitted through the feeder for any consecutive period of 3 (three) months need be submitted by June 2020 **is still awaited and not complied with during FY 2020-21**. The status reply with reasons for delay in not sending earlier reply is expected by **Commission immediately**.

### **DIRECTIVES ISSUED IN FY 2017-18**

#### **Directive 23**

As per Regulations 2 (19) of JERC (M&M) (MYT) Regulations, 2014 the Second Control Period shall be five years from 01.04.2018. The MSPDCL is directed to submit the next ARR for Control Period from FY 2018-19 to FY 2022-23 and Tariff Petition for FY 2018-19 and true up petitions for FY 2015-16 and FY 2016-17 along with audited annual accounts for FY 2015-16 and FY 2016-17 invariably. Audited Annual Accounts for FY 2015-16 to FY 2015-16 to FY 2017-18 along with revised true up petitions be submitted soon.

### **Compliance status**

MSPDCL has completed the audited annual account statements upto FY 21-22 and submitted the same to the Commission along with the true up petitions for FY 15-16 to FY 20-21 as well as the MYT petition of FY 23-24 to FY 27-28 which includes the truing up o of FY 21-22. There was a delay in in finalization and auditing of account statements due to various reasons like lack of capacity in MSPDCL, delay in appointment of audited accounts, difficulties in streamlining of accounting processes etc. But now MSPDCL has streamlined its accounting processes to a great extent and the audited reports are up to date till now. From now, MSPDCL shall submit annual true up petitions on time.

**Commission's Comments**

The Directive is treated as complied with.

**Directive 24**

The MSPDCL is directed to submit the required information in the format prescribed in JERC M&M (MYT) Regulations, 2014 from next tariff petition onwards which are mandatory.

**Compliance status**

MSPDCL has submitted all the necessary required information in the format prescribed.

**Commission's Comments**

The above reply is just a facsimile of the earlier year reply with no addition to it. But the formats designed by the Commission has not been adopted in this MYT filing.

The MSPDCL is advised to be careful in future so that this irregularity don't recur and have a look at the formats submitted by P&ED Mizoram for format adherence in future. The repetition of same issue consecutively is unwarranted in this format preparation and **don't prefer to send evasive replies on this matter.**

**Directive 25**

The Commission is of the view to introduce KVAH billing in energy charges to all HT categories and LT categories with contracted load 20 kWh and above with effect from FY 2018-19 onwards. The licensee is directed to see that all HT connections are provided with tri-vector/MDI meters for such connections without fail.

**Compliance status**

Meter reading and billing for all the HT consumers has been started for kVAh measurement in line with the tariff order. All the HT consumer meters are having trivector / MDI meters.

**Commission's Comments:**

The MSPDCL is directed once again to provide details of all HT consumers with required trivector/MDI meters. The above reply is a copy paste of the earlier year reply and no progress seen made.

**New Directives issued by Hon'ble Commission in its tariff order for FY 2018-19.****Directive 29**

MSPDCL was directed to ensure the installation and energization of meters at all 11 kV feeders which is the inter-company boundary and the energy injection point from MSPCL to MSPDCL system for proper energy accounting. The Commission also directed that there should be monthly joint reading of the meters by MSPCL and MSPDCL.

**Compliances:**

It is submitted that this exercise would be meaningful only if MSPCL signs the transmission service agreement with MSPDCL and raises monthly bills. A directive may be issued to MSPCL to sign the transmission service agreement or start the monthly transmission bill raising process to MSPDCL.

At present provisional meter readings, subject to correction, are taken in the presence of the Substation Staff using CMRI.

**Commissions Comments:**

The details of first meter readings for 3 (three) consecutive months may be submitted **is still awaited by the Commission during FY 2020-21** and the Licensee is once again directed to submit the latest available status report **forthwith without fail** and the non-compliance is considered seriously.

**Directive 30**

MSPDCL and MSPCL were directed to conduct monthly joint meter reading of the 11 kV incoming meter (which is the injection point of energy from MSPCL to MSPDCL). MSPDCL was directed to complete installation and Energization of all 11 kV feeder meter by September, 2018 and calculate the energy injected by MSPCL to MSPDCL on monthly basis. MSPDCL was also directed to complete the DT metering by September, 2018 and conduct a case study of feeder-wise energy loss for all 11 kV lines. The Hon'ble Commission further directed MSPDCL to come-up with LT line loss for individual DT fed LT lines.

The Licensee should submit compliance report in full shape by 15th July 2019 as the licensee has stated that all the metering installations would be completed by the end of

2018-19.

**Compliances:**

The monthly feeder wise energy report is required to be reconciled with MSPCL and SLDC report.

At present, energy accounting **through DT metering could not be done** due to the below reasons

- 100% DTR metering was not done under the scheme.
- Deactivation of GPRS connectivity for the installed modems attached to DTs due to unstable network.
- The exorbitant recurring charges for the installed systems.

MSPDCL have been installing 11 KV feeder meters on priority basis and the same is proposed to be completed under the RDSS scheme.

**Commission's Comments**

The above compliance report is a facsimile of last year reply without any iota of change in words except **earliest possible**.

The detailed report is to be submitted by June 2020 is still awaited by the Commission. The recurring charges for the installed systems can be included in the ARR.

**The Licensee is once again directed to submit the latest available status report on or before 1<sup>st</sup> May 2023 without fail and the non-compliance will invoke serious action.**

**Directive 31**

The Commission is of the view to introduce KVAH billing in energy charges to all HT categories and LT categories with contracted load of 20 kWh and above with effect from FY 2019-20 onwards. The licensee is directed to see that all HT connections are provided with trivector/MDI meters for such connections without fail.

Targeted date by which KVAH billing will be introduced be reported by 30.06.2019.

**Compliances:**

Meter reading and billing for all the HT consumers has been started for KVAh measurement in line with the tariff order. All the HT consumer meters are having trivector / MDI meters.

The LT three phase consumers above 20 kW are having prepaid

meters. They are being billed on kWh basis. The directive may be reviewed accordingly by the Commission.

### **Commission's Comments**

The above compliance report is a facsimile of last year reply without any iota of change in words. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for this derisory replying and for not being attentive.

Latest Status report to be submitted by May 2020 is still awaited by the Commission.

**The Licensee is once again directed to submit the latest available status report immediately without fail and the non-compliance will be considered seriously.**

### **New Directives issued in FY2019-20**

#### **Directive 35**

**Licensee shall submit the detailed information on the following items latest by 15th August 2019:**

- a) Details of year wise pre-paid meters purchased so far with copies of supply/work order since the adoption of the pre-paid metering system.
- b) Year- wise installation of pre-paid meter since adoption of the pre-paid metering system.
- c) Circle wise installation of pre-paid meters giving details of sub-division with category wise consumers with activated pre-paid meters.
- d) Report on the year wise impact of pre-paid metering in the billing efficiency and collection efficiency of:
  - 1) Sub-division, Division and Circle since the adoption of prepaid meters.
  - 2) Up to date circle wise, Division/Sub-division list of consumers with activated/inactivated prepaid meter.
  - 3) Plan and target date for installation and activation of pre-paid meter to all the consumers under MSPDCL.

#### **Compliance of Directives:**

The cumulative installation data of pre-paid meters is given below:

Year	Prepaid Metering
2015-16	1.80 Lakh
2016-17	3.01 Lakh
2017-18	3.20 Lakh
2018-19	3.27 Lakh
2019-20	3.27 Lakh
2020-21	3.27 Lakh
2021-22	3.62 Lakh
2022-23	4.30 lakhs

MSPDCL shall complete 100% pre-paid meters installation work under RDSS scheme which is expected to be completed by FY 25

#### **Commissions Comments:**

It is surprising to the Commission that even after a year of issue of the directive, no compliance is submitted. The Information should have been submitted by June 2020 is still awaited by the Commission.

The Licensee is once again directed to submit the latest available detailed report **circle wise status report immediately without fail.**

#### **Directive 36**

MSPDCL should work out strategy to arrive at slab-wise energy consumption per consumer per month in respect of domestic and commercial categories. The average number of consumers consuming electrical energy in the first slab, second slab and third slab in domestic and Commercial categories respectively should be submitted along with their tariff petition for FY 2020-21 positively for proper assessment of revenue projection.

#### **Compliances:**

The slab wise data is not available from the old/ conventional pre- paid meters. MSPDCL has considered the data as per recharge information available with MSPDCL. Based on the recharge amount, monthly consumption, number of consumers in each slab etc has been derived. Based upon that estimated data for three financial years have been submitted. After completion of smart prepaid metering under RDSS scheme, MSPDCL should be able to provide the slab wise consumption as desired by the Commission for

smart prepaid consumers

### Commission's Comments

The data base Information so gathered pertaining to FY 2020-21 and 2021-22 should be submitted immediately as the same reply is still awaited by the Commission.

### Directive 37

MSPDCL should vigorously take up consumer metering either in Post-paid/Prepaid mode not only in valley but also in hilly areas, 100% metering should **be achieved within September 2019**. This will lead to meaningful consumption of Energy and fruitful consumer awareness campaign in hill areas and plain areas. This will also reduce un-accounted energy and Distribution losses of the DISCOM.

### Compliances:

MSPDCL is implementing extensive pre-paid metering scheme and for that 2 lakh prepaid meter scheme has been launched. The details of the scheme are already submitted before the Hon'ble Commission. MSPDCL has awarded the LOA on 19 December 2020 on Turn-key Firm (TKF) mode to M/s Shyama Power in this regard. MSPDCL shall complete 100% pre-paid meters installation work under RDSS scheme which is expected to be completed by FY 25. The district wise target is given below:

Districts	LT Metering (Target)
	Pre Paid Energy Meters (nos)
Bishnupur	9,121
Chandel	20,765
Churachandpur	16,711
Imphal West	11,964
Imphal East	47,777
Senapati	35,690
Thoubal	25,207
Tamenglong	19,873
Ukhrul	12,892
<b>Total</b>	<b>2,00,000</b>



**Commission's Comments**

The status report on the target achievement on the above LT metering in various districts be updated every six months. This Directive is still in force.

**Fresh Directives in FY 2020-21 based on ARR Submission****1. Distribution Losses & Outside State sales**

**“The MSPDCL shall invariably submit the details to the Commission on 15<sup>th</sup> of each month following the month in which the quantum of energy input/received by each circle and also the quantum of energy sold in the relevant month by each circle separately for each of the twelve (12) months promptly starting from April to March without fail. The information so furnished by the licensee would form the basis to arrive at the Distribution losses incurred by the MSPDCL in the entire year for truing-up purpose in future. Besides, the Licensee shall also submit the details of the quantity of Outside state sales achieved in each month starting from April to March for record along with the Circle wise sales information.”**

**Compliances:**

MSPDCL has committed to provide the circle wise performance data which is being maintained upto 30th June 2023. It is requested that this information may be submitted annually instead of monthly to enable submission of correct information and also to make it practical.

**Commission's Comments**

The incapability expressed as above by the MSPDCL by giving a stock reply on a matter needing high priority is very pathetic. Circle wise sales and energy input data would clearly depict the category-wise sales and distribution losses projection for FY 2021-22, 2022-23 and its reflections in MYT period are not having any basis and the projections being made in ARR submission is a kind of ritual and not with due diligence. Accuracy on the filed figure can't be relied upon as they are not the true reflection of Licensees performance anymore even after attained the Corporate status in 2014.

Under these circumstances, how would the licensee fulfil the REC-Tranche-II pre-

condition of “***A plan, endorsed by the State Government in consultation with Ministry of Power, to bring down their AT&C losses and ACS-ARR gap over the next three to four years***”. Explain?

**The Directive is still in force and needs compliance. The evasive reply as provided can no longer be entertained anymore.**

**1. Levy of penalties for non-payment of long pending revenue dues**

The Commission feels, that the imposing of penalties/late payment surcharges is not happening at the level expected and unless penalties are strictly imposed the revenue collections is bound to be poor and the Organisation will have to face financial crunch on account of their own inaction. This is not a healthy practice and MSPDCL shall take serious note of the situation and order for intensive special revenue collections drive and see that these huge dues from sale of power comes down very soon by drawing an action plan and intimate the same to the Commission by end of June 2020.

**Compliances:**

Late payment surcharge is added in the bills prepared by MSPDCL as per order in force. The same is reflected in consumer bills. For adjustment of arrears, in case of pre-paid payment, some amount (20% of the recharge amount) is adjusted first with older dues and remaining is considered as amount available for present consumption. However, the share of old dues, available at the time of company formation, is significant in total arrear. The same may be written-off and MSPDCL is pursuing the same with State Government. Proposal has been submitted before State Government.

**Commission's Comments**

The above reply is a rancid old answer without any updated information. This is made just for the sake of reply to directive with no intent to intimate the current position.

The Action plan report called for by the Commission on or before June 2020 is still awaited. The reply has not addressed this aspect and making unwarranted suggestions. Submit the said report immediately without fail. The inaction on non-submission is intolerable and testing the patience of Commission with whole lot of evasive replies. **The Directive is still in force and needs compliance.**

**3 Adopting Merit Order Despatch technique in Power purchases to minimise cost of power purchase and reduce the surplus power for sale**

It is observed that the MSPDCL is procuring the quantum of power purchase which is much more than their state sale requirement. They are resorting to selling these surplus quantities in the outside state sale through IEX at a loss of above Rs.1.20/kWh for each such unit sold. This will erode the profitability of the organisation due to excess payment for power purchases and also to absorb the loss sustained due to Outside state sale for each unit sold.

**The Licensee shall follow the merit order despatch principles judiciously or limit to their minimum off-take of energy which is costly in each month so as to minimise the power purchase cost and to pass on any such benefit of gains to the consumers and at the same time they are directed to keep the Outside State sales quantity to the least possible level all the time.**

In this regard, the MSPDCL is directed to review their power purchase quantity agreements with all the Central generating and neighbouring state power generators and limit the minimum off-take quantity to the reasonable quantities of requirement and report the compliance latest by 15<sup>th</sup> September 2020 positively.

**Compliances:**

It is respectfully submitted that MSPDCL is strictly following the Merit Order Dispatch technique. MSPDCL regularly submits the merit order to SLDC considering the power purchase cost of each project. As per availability submitted by the generators, the schedule is prepared accordingly, as per merit order. When cheaper sources are not available, due to any reason, MSPDCL has to schedule power from next available sources. As per demand characteristics, higher procurement is required in the summer months, when state demand is low, to bank the energy with other utilities. In winter months, i.e. high demand season for Manipur, the same can be utilised through import of banked energy from utilities. The same fact can be checked from actual monthly data for FY 2020-21 as submitted with this Petition. The outside state sales, through power exchange (not banking), occurs due to sudden reduction of state demand, which is

difficult to estimate or inability of backing down of generating stations due to technical reasons (technical minimum, maximum head level in hydro etc.) MSPDCL tries to optimize the power purchase cost to pass the benefits to the consumers. **It is requested that this directive may be dropped.**

#### **Commission's Comments**

The explanation given above doesn't match with the realistic situation as depicted in the ARR submission and Commission is not convinced with the compliance reply and still feels that MSPDCL shall do a lot in curtailing the excess quantum of purchase unnecessarily. This will not only burden the general public but also burdens the State Government Exchequer adversely in the subsidy form. This issue needs top-priority and take steps to minimise purchases from costly CGS stations and can also think of surrendering the excess quota from CGS with due discussions with State Government on this issue. The Commission is unhappy with the routine reply which cannot be corroborated with real-time purchases being made by MSPDCL.

#### **4 Levying of the applicable charges in the case of Mixed Loads services:**

Where any part of the connection given under one specific category, it shall not be utilized for any other purpose other than for which it is released that involves different higher applicable rate in the tariff schedule. A separate connection shall have to be taken invariably for such other loads/purpose under appropriate category, failing which the entire consumption (i.e., existing category consumption and additional consumption for different purpose) shall be billed in the category of consumption that corresponds to a higher applicable tariff for which any part of that connection is utilised.

#### **Compliances:**

MSPDCL following the directives given by Hon'ble Commission and working as per the direction. MSPDCL prepares the bills according to consumer category. **It is requested that this directive may be dropped.**

#### **Commission's Comments**

Report the number of cases detected during FY 2020-21 to 2022-23 if you are following the commission instruction on mixed loads and the additional revenues realised if any.

Why MSPDCL is not coming out with facts and figures and concealing the required data. The same shall have to be provided to the commission **by end of April 2023** and same thing is seriously awaited.

- 5 **Levy of rebate/surcharge on availing supply at a voltage higher/lower than the applicable base load.** In dealing with such consumption loads, the billing shall be made strictly as per the clause 1.1as stipulated under general conditions of supply in Tariff Schedule. Report the number of cases detected during FY 2020-21 and the additional revenues realised if any

**Compliances:**

MSPDCL noted that billing shall be made strictly as per the clause 1.1 as stipulated under general conditions of supply in Tariff. Schedule and following the same. **It is requested that this directive may be dropped.**

**Commission's Comments**

The above reply is a repetition of last year's response and nothing new is noticed. Report the number of cases detected during FY 2020-21 TO 2022-23 and any additional revenues realised if any. **The directive is still in force.**

- 6 **Conducting of Energy Audit & keeping proper metering system in place**

The MSPDCL shall also conduct system studies and energy audit after proper assessing of metering systems kept into operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and ***initial report on these issues be submitted to Commission on or before end of September 2020.***

**Compliances:**

It is submitted that this directive is repetitive and already replied earlier. **It is requested that this directive may be dropped for the sake of brevity**

**Old reply:**

MSPDCL respectfully submits that without proper metering the energy audit cannot be conducted. Consumer side meter is available but DT/ sub-station level metering is not adequate to do the energy audit. Under various ongoing schemes, MSPCDL has installed some DT / feeder meters. MSPDCL will try to complete this exercise after getting sufficient fund in this regard. Also, sub-station level status will be cleared once various central government projects complete.

**Commission's Comments**

Where is the repetition, the earlier reply is also indicated above, where in the reply expressed certain constraints? This will not entitle you for dropping the directive.

The kind routine reply on this matter from Licensee is unexpected at this juncture even after it has become Corporate company since 2014 and the basic problem left unattended. The Licensee shall submit the action plan being made to resolve this fundamental issue and also specify as to how it is going to manage the financial fund crunch without leaving the problem to perpetuation by 1<sup>st</sup> May 2023 on top priority.

**Fresh Directives on ARR submissions in FY 2021-22****Directive No.1:**

- a) Submit the total Outstanding Arrears payable to various CPSCU Gencos & Transcos, IPPs and RE Generators individually along with yearly accumulated dues in the past and the constituent penalties and late payment charges break-up details separately for which the **Special Long-Term Transition Loans to DISCOMS for COVID-19 is being availed for an amount of Rs.111.48Cr.**
- b) Besides, also submit a detailed report duly indicating the actual amounts drawn and dates of drawal for each tranche to the Commission latest by 16<sup>th</sup> June 2021 for record purpose.
- c) The proposed Loan amortisation schedule may also be submitted. If the Interest is payable along with Tax, indicate the applicable Tax rate being adopted for in each disbursement to be made to the REC/PFC as per the loan agreement entered with.

**Compliance:**

The Special Long-Term Transition Loans to DISCOMS for COVID- 19 is based on the total arrear outstanding as on 31-03-2020. MSPDCL has a total due of Rs.111.48Cr. The latest power purchase outstanding as on 31.03.2022 is INR 186 crores. This is a very serious issue for MSPDCL as it is not able to pay the power purchase bills on time and has to pay late payment surcharge which increased the cost of supply for MSPDCL and also faces risk in regulation or stopping of supply of power. The attached table is the break up bill wise power purchase dues.

Each Tranche is for Rs. 55.74 Crore divided equally between PFC and REC Ltd. Details of the disbursement request for each tranche is attached

Cabinet approval for the Covid-19 along with the amortization schedule is attached for consideration.

**Commissions Comments:**

**The details of late payment surcharge amount involved for two months shall be provided for Commissions reference. This late payment details are still waited. The reply is made without referring to commission comments.**

**Directive No.3**

Availing of Rs.15.67crs from REC for installation of Street Lights and High Mast Lights: Submit the Loan amortisation schedule proposed for at the time of availing the loan and details of loan drawal amounts along with dates of drawal. Also, provide the following details relating to the loan:

- i) Tenure of the loan repayment and period of moratorium
- ii) Is the repayment of interest being on monthly resting or annually and applicable rate of interest of loan at which it is availed?
- iii) Interest calculation if payable based on 365 days based or 12 months based. What's is the tax rate payable along with interest if so provide the relevant details.
- iv) The entire project execution cost is Rs.17.5071 crs, while the principle loan amount is only Rs.15.67crs. How the differential uncovered gap of Rs.1.84crs is being managed by the MSPDCL in this aspect.
- v) The Cost benefit analysis for the loan availed is not described in detail in the ARR filing submission. What is the interest burden (Rate of Interest and monthly/Quarterly amount payable) towards this loan amount consequent on its availing?

**Compliance:**

**Loan drawal amount with date of drawal:**

1. drawn on 6<sup>th</sup> October 2021 : `1,10,15,854

2. drawn on 25<sup>th</sup> January 2022: `1,75,65,833
3. drawn on 9<sup>th</sup> February 2022: `3,60,29,572

**Overall Loan amount drawn sofar `6,46,11,259 (Rs.6.46crores)**

Amortization schedule is attached in soft copy format.

Item(i) reply: Tenure = 10 years, Moratorium period = 3 years

Item(ii) reply: Repayment Monthly resting and Rate of interest: 11% during moratorium and 11.15% post moratorium.

Item(iii) reply: interest calculation is on 365 days basis.

Item-(iv) reply: "Project cost as per LoA is `16,00,81,185/- differential uncovered gap of Rs.0.3381 cr will be being managed by the MSPDCL."

Item-(V): Interest Paid:

Due on 1st Nov.2021 - Rs.86316  
 Due on 1st Dec. 2021 - Rs.99595  
 Due on 1st Jan. 2022 - Rs.102915  
 Due on 1st Feb .2022 - Rs.137445  
 Due on 1st Mar. 2022 - Rs.433435  
**Overall amount paid – Rs.8,59,706**

#### **Commission's Comments:**

The Street lighting (High Mast Lights) loan amount is fully disallowed by the Commission for the reason detailed therein. Hence, whatever so far what has been paid must be recovered and payable in future will have to be transferred to MAHUD only. The Compliance report on this aspect is required to be submitted by end of June 2022. This amount recovery by MSPDCL is very essential. **(No reply is attempted to cover this aspect).**

There are other issues like uncovered gap of 1.84Crs to be managed and Cost benefit analysis for the loan is still not addressed by the reply given. The replies are given irrespective of the commissions comments is of no use and would not amount to compliance of Directive.

#### **Directive no.4:**

**Kutir Jyoti:** Provide the details of number of consumers who exceeded 45 kWh in the last 3 months were actually converted to L.T Domestic consumers during the FY 2020-21 and 2021-22.



**Compliance:**

Till now, no such instance has been reported where a consumer registered under Kutir Jyoti was found to consume more than 45 kWh in a month and hence none have been upgraded to LT Domestic category.

**Commission's Comments:**

The vigilance by the Department staff must be made on continuous basis and it is the bounden duty of the MSPDCL to have a continuous monitoring of the issue and slacken is not desired. However, the directive is dropped.

**Directive No.5:**

**Unmetered Supplies:** Report number of consumers detected under the unmetered supplies in the past from 2019-20 onwards and the details of revenue collected from such consumers. Also submit the corrective actions initiated/taken to prevent such consumers from resorting to theft of energy again.

**Compliance:**

Since FY 2019-2020 1,42,751 consumers of electricity have been identified as unmetered consumers. They all have been registered into MSPDCL post-paid billing system and are being continuously served electricity bills on a monthly basis. They are billed as per the tariff approved by JERC and as per field reports of power supply. Revenue collected from these consumers since 2019-20 till Feb 2022 stands at Rs 156,61,81,030. Due to unavailability of electric meters and to avoid long period without serving electric bills, MSPDCL have been continuing to serve electric bills to these unmetered consumers. As a part of corrective measure, MSPDCL is currently undergoing mass prepaid installation and 100% prepaid meter installation under RDSS scheme which is expected to be completed by FY25.

**Commission's Comments:**

The Reply is very vague about the billing of those consumers based on meters installed at their place of consumption. If the unmetered Consumers noticed in 2019-20 to the tune of 1,42,751, why MSPDCL could not release meters to record their consumption.

Moreover, it is also not clear from the reply whether the dues to be collected have been recovered to the tune of Rs.156.61crs. The exhaustive details of billing pattern under which those consumers are being registered and being billed need be intimated to the Commission and the category wise revenue collections so far made from these delinquents. It is advised to provide a comprehensive reply instead of making a vague answering. The Directive is still in force and not dropped.

**Directive No.6**

**Consumer Contribution accumulated amount:** Besides, the details of amount collected from consumer contributions possessed by the MSPDCL ever since the inception of the corporation in 2014 shall be submitted to the Commission each year-wise by end of June 2021.

**Compliance:**

MSPDCL since its inception in 2014 has not collected any amount from its consumers as contribution towards any funds/works. Hence, amount possessed by MSPDCL in this regard may be treated as NIL.

**Commission's Comments:**

The commission taken your reply into cognizance and the directive is dropped.

**Directive No.7**

The MSPDCL is directed to file at least three true-up petitions in chronological sequence of those financial years which are pending for submission along with full-fledged audited Accounts before filing next tariff petition for FY 2022-23 without any further delay.

**Compliance:**

This directive may be dropped as it is complied with.

**Commission's Comment:**

This directive is dropped.

**Directive No.8**

The MSPDCL shall also conduct system studies and energy audit after proper assessment of metering systems in operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and ***initial report on these issues be submitted to Commission on or before end of August 2021.***

**Compliance:**

This will require detailed asset survey and capturing of asset data like length of lines, conductor size, type etc. which is a voluminous work.

The detailed work of preparation of asset register is a voluminous work which requires separate funds for appointment of a consultant who can take up work of physical verification of assets, GIS mapping and consolidation of detailed asset data in an asset register format. Due to lack of funds, MSPDCL is not able to take up this work. The Commission is requested to allocate some budget in the tariff order for undertaking this voluminous work.

**Commission's Comment:**

While the directive is called for a report in August 2021 itself. This kind of casual replying of the directive will make commission to invoke the provisions under Section 142 or 146 of the E.Act 2003. There is no disciplined response ever seen in the case of Directives and this kind of lackadaisical attitude would not be tolerated any more. Where did the excess true-up surplus of Rs.220.67crs gone, which were supposed to be with MSPDCL. Keeping such huge amount, again asking for fund allotment appears the careless attitude of the Licensee. It here by warned to be conscious in the replies.

**Directive No.9:**

It is necessary that the Licensee should chalk out a constructive & strategic plan to curtail distribution losses in FY2021-22 and submit such action plan to the Commission with an assurance to achieve before end of 30<sup>th</sup> June 2021 (pg-89 FY 2021-22).

**Compliance:**

**The loss reduction plan has been prepared under RDSS scheme and accordingly the strategy for loss reduction has been worked out under RDSS scheme which includes**

**100% pre-paid metering, 100% metering of feeders and DTS, reconductoring of 11kv/33 kV lines, feeder bifurcation and IT OT works as submitted in the MYT petition.**

**Commission's Comments:**

You must make a detailed reply for this matter on or before 2<sup>nd</sup> week of May 2023 invariably.

**New Directive for FY 2023-24**

**Directive No.1:**

The Audited Annual accounts do not contain the following information, which otherwise is needs to be recorded for future reference.

- a) Quantum of Energy & cost of power purchase details are captured in any Schedule of the audited account.
- b) The details of Distribution Losses sustained during the Financial year by providing the percentage of losses and the relevant quantum of units also.
- c) The Break-up of Retail Energy sale to various consumers in respect of units sold actually
- d) The Audited accounts must depict the revenue realised from various consumer category each category wise for future reference also true-up admissibility purpose. In the absence of these details, the entity is providing the break up details according to their calculations according to its way of derivation. But the revenue shown in FY 2021-22 appears under estimated and not commensurate with the quantum of sales achieved during FY 2021-22.

Therefore, the Commission want the above details shall be reflected in the FY 2022-23 audited accounts invariably. The Copy of the Audited accounts will be considered as proof of compliance of this directive.

## 12. Fuel and Power Purchase Cost Adjustment

### 12.1. Background

Section 62 sub-section 4 of the Electricity Act, 2003 provides that no tariff or part of any tariff may ordinarily be amended, more frequently than once in every financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified. This provision of the Act requires the Commission to specify the formula for fuel surcharge.

Accordingly, the Commission has specified the formula for working out the Fuel and Power Purchase Cost Adjustment (FPPCA) charges and other terms and conditions of FPPCA allowed the distribution licensee to recover the FPPCA charges from the consumers to some extent automatically every month satisfying the stipulated condition in this regard.

#### ***Identification of Incremental cost and process of recovery.***

- (a) As part of the distribution function related activity, the Licensee shall recover the incremental cost incurred due to the following:
  - (i) Variation in Generation Cost of its own generation on account of increase in fuel cost, if the Distribution Licensee has its own generation.
  - (ii) Variation in power purchase cost on account of increase in fuel cost.
- (b) The incremental cost of own generation and power purchase shall be computed on the monthly basis on the basis of actual variation in fuel cost and power purchase cost vis-a-vis the cost approved in the tariff order in accordance with the formula provided in regulation 1.2 below.  
**Note:** - *The incremental cost shall not be computed on the basis of estimated or expected variation in fuel/power purchase cost.*
- (c) *Incremental cost/FPPCA shall be calculated and billed to consumers, **automatically, without going through regulatory approval process, on monthly basis**, according to the formula prescribed below, by the State Commission subject to true-up on **quarterly/ annual** basis as decided by the State Commission. Provided that the automatic pass through shall be adjusted for in monthly billing in accordance with these Rules duly adhering to all the Terms & conditions given below.*
- (d) *The licensee shall compute on the basis of actual variation in cost of fuel and power purchase for the power procured during the **nth** month and levy the charge of incremental cost in the energy bill of (N+2)th month in accordance with the terms and conditions applicable for the FPPCA formula provided below, basing upon proportion to actual energy consumption in the **nth** month in which such*

*incremental cost has been incurred. **The inter-state Transmission charges are excluded here.***

**Example:** *The Incremental cost/FPPCA on account of changes in tariff for power supplied during the month of **April** of any financial year shall be computed and billed in the month of **June** of the same financial year.*

- (e) *The Distribution Licensee shall submit on monthly basis, the details of the incremental cost incurred and details of rate levied & amount charged to all consumers in the **nth** month, along with the detailed computations and supporting documents as may be required for verification and approval by the Commission promptly before the **end of subsequent month**.*
- (f) *The Commission shall verify the incremental cost charged/levied by the Licensee with supporting documents so submitted by the Licensee and approval shall be accorded with suitable & necessary modifications and adjustment if any needed after thorough examination and scrutiny after such submission.*
- (g) *In this regard, the Licensee shall suitably upgrade its billing and IT systems to incorporate Incremental Costs (IC) as a component of tariff & in billing mechanism.*

#### **Formula for computation of Incremental cost/FPPCA:**

The formula and terms and conditions for calculation of the incremental charge on account of increase in fuel cost and power purchase cost namely **fuel and power purchase cost adjustment (FPPCA)** charges shall be as under

FAC (Rs./kWh)	=	$\frac{Q_c(RC_2-RC_1)+Q_o(RO_2-RO_1)+Q_{pp}(R_{pp2}-R_{pp1})+V_z+A}{(QP_{g1} + Q_{pp1} + Q_{pp2}) \times [1 - \frac{L}{100}] - PSE} \times 100$
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Where,

Q <sub>c</sub>	=	Quantity of coal consumed during the adjustment period in Metric Tons (MT).
	=	(SHR X Q <sub>pg</sub> ) (1+TSL) X 1000/GCV, or actual whichever is less.
R <sub>c1</sub>	=	Weighted average base rate of coal supplied ex-power station coal yard as approved by the Commission for the adjustment period in Rs./MT
R <sub>c2</sub>	=	Weighted average base rate of coal supplied ex-power station coal yard for the adjustment period in Rs./MT
Q <sub>o</sub>	=	Actual Quantity of oil (in KL) consumed during the adjustment period or normative oil consumption as per Tariff order whichever is less.
R <sub>o1</sub>	=	Weighted average base rate of oil ex-power station (Rs./KL) approved by the Commission for the adjustment period.

R <sub>o2</sub>	=	Weighted average actual rate of oil ex-power station supplied (Rs. / KL) during the adjustment period.
Q <sub>pp</sub>	=	Total power purchased from different sources (kWh) = Q <sub>pp2</sub> +Q <sub>pp3</sub>
Q <sub>pp1</sub>	=	$Q_{pp3} \left[ 1 - \frac{TL}{100} \right]$ in kWh
TL	=	Transmission loss (CTU) (in percentage terms).
Q <sub>pp2</sub>	=	Power Purchase from sources with delivery point within the state transmission or distribution system (in kWh)
Q <sub>pp3</sub>	=	Power Purchase from sources on which CTU transmission loss is applicable (in kWh)
R <sub>pp1</sub>	=	Average rate of Power Purchase as approved by the Commission (Rs./kWh)
R <sub>pp2</sub>	=	Average rate of Power Purchase during the adjustment period (Rs./kWh)
Q <sub>pg</sub>	=	Own power generation (kWh)
Q <sub>pg1</sub>	=	Own Power generation (kWh) at generator terminal – approved auxiliary consumption
L	=	Percentage T&D loss as approved by the Commission or actual, whichever is lower.
SHR	=	Station Heat Rate as approved by the Commission (Kcal / kWh)
TSL	=	Percentage Transit and Stacking Loss as approved by the Commission
GCV	=	Weighted average gross calorific value of coal as fired basis during the adjustment period (Kcal / Kg)
V <sub>z</sub>	=	Amount of variable charges on account of change of cost of unknown factors like water charges, taxes or any other unpredictable and unknown factors not envisaged at the time of Tariff fixation subject to prior approval of the Commission (Rs.)
A	=	Adjustment, if any, to be made in the current period to account for any excess / shortfall in recovery of fuel of Power Purchase cost in the past adjustment period, subject to the approval of the Commission (Rs.)
PSE	=	Power sold to exempted categories (presently agriculture and BPL-Kutir Jyoti consumers)

If there are more than one power station owned by the Licensee Q<sub>c</sub>, R<sub>c1</sub>, R<sub>c2</sub>, Q<sub>o</sub>, R<sub>o1</sub>, R<sub>o2</sub>, Q<sub>pg</sub> and Q<sub>pg1</sub> will have to be computed separately for each power station and

sum of the increase/decrease of cost of all power stations shall be taken into consideration.

In case of the two distribution companies, there is no generation of their own. Then,  $Q_c$ ,  $Q_o$  and  $Q_{pg1}$  will be zero in this case.

### **Terms and conditions for application of the FPPCA formula**

- 1) The basic nature of FPPCA is '**adjustment**' i.e. passing on the increase or decrease in the fuel costs and power purchase cost, as the case may be, compared to the approved fuel costs and power purchase costs alone in this Tariff Order and it shall consider the Transmission charges in deriving the FPPCA.
- 2) The operational parameters/norms fixed by the Commission in the Tariff Regulations/Tariff Order **shall be the basis of calculating FPPCA charges.**
- 3) The FPPCA may be recovered every month in the form of an incremental energy charge (Rs/kWh) in proportion to the energy consumption so long it do not exceed 5 (five) paise over the approved avg. power purchase cost in the relevant Tariff order and balance amount, if any, in the FPPCA over and above this ceiling shall be carried forward to be billed in subsequent month after due approval from the Commission upon submitting the relevant proposal for scrutiny and approval.
- 4) Incremental cost of power purchase due to deviation in respect of generation mix or power purchase at higher rate shall be allowed only if it is justified to the satisfaction of the Commission.
- 5) Any power purchase cost increased by the licensee on account of **paying penalty, interest due to delayed payments, etc. and due to operational inefficiencies shall not be allowed for FPPCA purpose.**
- 6) FPPCA charges shall be levied on all categories of consumers **except LT Agriculture and Kutir Jyoti categories.**
- 7) Distribution licensee shall file detailed computation of actual fuel cost in Rs./kWh for each month for each of power stations of the state generators as well as cost of power purchase (Fixed and Variable) from each source/station and a separate set of calculations with reference to permitted level of these costs.
- 8) The data in support of the FPPCA claims shall be duly **authenticated by an officer of the licensee, not below the rank of Chief Engineer on an affidavit** supported



with the certified copy of energy bills of power purchase, bill for coal purchase and its transportation cost, oil purchase bill and the quantity of coal and oil consumed during the month.

- 9) Levy of FPPCA charge will be allowed only when it is five (5) paise or less per unit. If it is more than 5 (five) paise/unit, the same may be carried forward for adjustment in the next month only.

The incremental cost per kWh due to this FPPCA over and above 5 (five) paise so arrived any month shall be recovered in the energy bill of the month subsequent to the order of the Commission approving FPPCA with full details of rate and unit(s) on which FPPCA charges have been billed. The Distribution Companies shall provide along with the proposal of FPPCA (as applicable to them) for a month/quarter, a compliance report of the previous order of the commission in respect of FPPCA.

**TARIFF SCHEDULE**



## Tariff Schedule

### 1. General Conditions of Supply (For all categories of Consumers):

**1.1 Rebate for advance payment:** For payment of energy bill in advance, a rebate of 1% shall be allowed on the rate of charge of the applicable tariff. This will be applicable only to those consumers provided with prepaid energy meters.

**1.2 Rebate/Surcharge for availing supply at voltage higher/lower than base voltage:** For those who avail supply at higher voltage than the classified supply voltage for corresponding load as per clause-3.2 of Electricity Supply Code Regulations, 2013 of JERC (Manipur and Mizoram) rebate shall be allowed and of those availing power at lower voltage than the specified voltage (as per the above Regulation) surcharge shall have to be levied as detailed below:

- (i) **For consumers having Contracted load upto 50kW** – If the supply is given at HV/EHV, a rebate of **5%** shall be admissible on both the rates of energy charge and fixed charge of the applicable tariff.
- (ii) **For consumers having contracted load above 50kW** – If supply is given at a voltage lower than the base voltage for corresponding load as per clause mentioned above, the consumer shall be required to pay an extra charge of **10%** additionally on the bill amount (Energy charge + Fixed charge) calculated at the applicable tariff.
- (iii) All voltages mentioned above are nominal rated voltages as per clause 3.2 of the Electricity Supply Code Regulations, 2013 issued by JERC (Manipur & Mizoram).

**1.3 Payment:** All payments can be made by way of Cash (upto an amount acceptable to the Licensee from time to time), Banker's Cheque, Demand Draft or Money Order or e-transfer by Online. Cheques and demand drafts shall be payable at any branch of a scheduled commercial bank that is a member of the clearing house for the area where the concerned Sub Divisional Office is located.

However, part payment is subjected to acceptance by the competent authority. Bank commission/charges, if any, should be borne by the consumers.

**1.4 Validity of existing Recharge Voucher:** in the case of any consumer with a prepaid meter having purchased pre-paid voucher prior to the effective date of new Tariff, the existing

voucher shall be continued invariably till such voucher amount is fully exhausted. Thus, the Licensee shall cautiously issue voucher such that the issued voucher validity is for a minimum number of days beyond the effective date of new tariff.

**1.5 Due Date:** Due date for payment of monthly bill through cheques shall be **three (3) days** in advance from the normal due date for that bill payment. While, in the case of payment through online bank transfer/credit card, it shall be **one (1) day** in advance from the normal due date specified for that bill. The licensee shall ensure that the bill is delivered to the consumer by hand/post/courier at **least ten (10) days** prior to the payment due date of the bill. (Clause 6.1 & 6.5 of the JERC for Manipur & Mizoram (Electricity Supply Code Regulations, 2013 with latest amendments).

**1.6 Surcharge for late payment of bills:** If payment is not received within the due date surcharge @ 2% per month at simple interest on the outstanding principal amount for the period of delay in successive period or part thereof will be levied/charged, until those number of days outstanding amount is not fully repaid.

**1.7 Single Point Delivery:** This tariff is based on the supply being given through a single point of delivery and metering is also at one voltage. Supply at other points at other voltage/voltages shall be separately metered and billed for and shall be considered as separate connection.

**1.8 Voltage and frequency:** All voltages and frequency shall be as per clause 3.1 and 3.2 of Electricity Supply Code Regulations, 2013 issued by the JERC for Manipur & Mizoram with all applicable amendments made from time to time.

**1.9 Power Factor Incentive / Surcharge: -**

- a) If the average monthly power factor of the consumer increases above 95%, he shall be paid an incentive at the following rate:

Criteria condition	Eligible Incentive
For each one percent increase by which his average monthly power factor is above 95%, up to unity power factor	Incentive at One percent (1%) of the total amount of the bill under the head 'energy charge'.

- c) If the average monthly power factor of the consumer falls below 90%, he shall pay a surcharge in addition to his normal tariff, at the following rate:

Criteria condition	Surcharge payable
For each one percent by which his average monthly power factor falls below 90% up to 85%	Surcharge levied at One percent (1%) of the total amount of the bill under the head 'energy charge'.

- c) If average monthly power factor of the consumer falls below 85%, he shall pay a surcharge in addition to his normal tariff at the following rate:

Criteria condition	Surcharge payable
For each one percent by which his average monthly power factor falls below 85%	Surcharge levied at Two percent (2%) of the total amount of the bill under the head 'energy charge'.

- d) If the average monthly power factor of the consumer falls below 70%, then the utility shall have the **right to disconnect supply** to consumer's installation after serving a notice of 15 days. Supply may be restored only after suitable steps are taken to improve the power factor to the satisfaction of the Utility. This is, however, without prejudice to the levy of surcharge for low-power factor in the event of supply not being disconnected.
- e) For this purpose, the "average monthly power factor" is defined as the ratio of total 'Kilo Watt hours' to the total 'Kilo Volt Ampere hours' recorded during the month. This ratio will be rounded off to two figures after decimal. Figure 5 or above, in the third place after decimal be rounded-off to the next higher figure in the second place after decimal.
- f) Notwithstanding the above, if the average monthly power factor of a new consumer is found to be less than 90% at any time during the first 6 (six) months from the date of release of connection and if he maintains the average monthly power factor in subsequent three (3) months at not less than 90%, then the surcharge billed on account of low power factor during the said period, shall be withdrawn and credited in next month's bill after the said observation period of three (3) months.

**1.10 Transformation loss:** The consumers getting their supply at HT and metered on the LT side shall be charged transformation loss in kWh as per clause-5.7 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013. The same is reproduced for convenience sake:

- (1) The average losses in the transformer shall be calculated as follows and added to the energy consumption indicated by the meter:

$$\text{Average transformer loss} = \frac{730 \times 1.0 \times C}{100} = \text{kVAh per month}$$

where C = KVA rating of the transformer. For conversion of kVAh to kWh or vice versa, latest power factor as per JERC (M&M) (Electricity Supply Code) Regulations, 2013 with latest amendment is to be adopted.

- (2) The transformer loss arrived at by the above formula shall be added to the energy consumption, even when the recorded energy consumption is found **nil**.
- (3) 1% of the transformer capacity for transformer above 63 KVA will be added to the recorded maximum demand on the Low-Tension side to arrive at the equivalent High-Tension demand.

**1.11 Rounding-off Contracted Load/Billing demand:** For the purpose of calculation of fixed/demand charge in the monthly billing, the contracted load/billing demand shall be taken on actual basis (not to be rounded), except for load less than 500 W. Load less than 500 W shall be taken as 0.5 kW for calculation purpose of fixed/demand charge in the monthly billing. **The Licensee should update Contracted load/Billing demand as per the provisions of clause-4.108 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 (with up to date amendment).**

Fixed/Demand charge in the monthly billing shall be calculated as follows: -  
Fixed/Demand charge per month = Contracted load (in kW) or Billing demand (in kVA) x Rate of fixed charge per month per kW/kVA (as the case may be).

**Sample calculation for Domestic Purpose (1) 1.24KW (2) 0.36 kW, Fixed charge for Domestic is Rs 60.00 per kW of contracted load is assumed.**

Sample 1: - Fixed charge = 1.24 x 60 = Rs 74.40 = Rs 74.00.

Sample 2: - Fixed charge = 0.36 kW (=0.50 kW after rounding) x 60 = Rs 30.00.

*Note: Fraction of rupees is rounded-off as per clause 1.11 of this tariff schedule and load below 0.5 kW is rounded-up to 0.5 kW as per clause 1.10 of this tariff schedule.*

**1.12 Rounding-off Rupees:** Each components of bill, such as energy charge, fixed/demand charge, meter rent, surcharge, rebate of any kind, etc, including interest, involving

fraction of a rupee should **be individually rounded-off to nearest rupee** (fraction of 50 paisa and above to be round off to the next higher rupee and fraction less than 50 paisa to be ignored). In case of non-availability/scarcity of small change of rupees less the Rs.10/-, consumer may be allowed to tender next higher amount divisible by 10. Such over tendered amount shall be carried forward into next month bill as credit and shall not earn interest for whatsoever reason.

**1.13 Mixed Load:** - Any part of the connection given for one specific category purpose, should not be utilized for any different purpose, involving higher rate of charge in the tariff. A separate connection shall have to be taken invariably for such loads/purposes under appropriate category afresh, failing which the entire consumption (i.e., existing category consumption and additional consumption for different purpose) shall be billed in that corresponding category **having higher rate of applicable tariff** for which any part of that connection is utilised for the entire period of lapse.

**1.14 System of supply:**

**1.14.1- LT Supply:**

- i) Alternating current, 50 Hz, single phase (1Ø) 230 Volts up to 8kW
- ii) Alternating current, three phase (3Ø), 400 Volts for loads above 8 kW **up to 50 kW**.  
wherever 3-phase (3Ø) connection is required for load less than or equal to 8 kW,
- iii) Alternating current, three phase (3Ø), 400 Volts for loads above 8 kW **up to 50 kW**.  
Wherever 3-phase (3Ø) connection is required for load less than or equal to 8 kW, necessary justification shall be provided along with such request for consideration of licensee for extending such supply.

**1.14.2- HT Supply:**

Supply of Electricity to the Consumers at voltage above 400V as per Clause 3.2 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 **with up to date amendment**.

**1.14.3 The maximum demand:** The Mixed Demand means the highest load measured in average kVA or kW at the point of supply of a consumer during any consecutive period of 30 (thirty) minutes during the month or the maximum demand recorded by the MDI during the month.

**1.14.4 Billing demand:** As defined in Clause 2.3(12) of the Joint Electricity Regulatory



Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments.

The clause reads as follows:

**“Billing Demand means highest of the following: -**

- (i) the Contract demand, or**
- (ii) the maximum demand indicated by the meter during the billing cycle or**
- (iii) the sanctioned load wherever contract demand has not been provided in the supply agreement.”**

**1.14.5 Government Subsidy: Section-65 of E.Act 2003 is hereby reproduced –**

***“ Provision of subsidy by State Government:- If the State Government requires to grant of any amount of subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall, notwithstanding any direction which may be given under section 108, pay, in advance and in such manner as may be specified, the amount to compensate the person affected by the grant of subsidy in the manner the State Commission may direct, as a condition for the licence or any other person concerned to implement the subsidy provided for by the State Government:***

***Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in this section and the tariff fixed by the State Commission shall be applicable from the date Tariff order is issued by the Commission in this regard in each year.”***

**Therefore, if the government subsidy is regularly received, the licensee shall adopt tariff ‘A’ (Subsidised Tariff) or in the event of non-receipt of said subsidy, the Licensee shall be at liberty to implement tariff ‘B’ (Full Cost Tariff i.e., without Subsidy) during the period of non-receipt.**

There could be a situation, where the outstanding monthly subsidy due was released by the government after passage of much time elapse and thereby consumers were to be billed at full cost tariffs (Tariff-B) in those relevant month or months when subsidy due was not released as stipulated by the Commission. Given the situation, the entire excess amount so charged to all those consumers on

account of full cost tariff adoption shall have to be refunded in the form of deduction by treating such excess amount so collected by Licensee **as an advance payment in one instalment** in the immediate monthly billing cycle where bills to issued to respective consumers soon after receipt of such pending Tariff subsidy relating to the past month/months. If in case, the excess amount so refundable is exceeding the monthly billing amount to be so adjusted in case of any consumer/consumers, then such excess amount unrefunded may be carried forward and be adjusted in the following monthly bill/bills to be issued to such consumer/consumers **until full settlement is done with.**

**1.14.6 Applicable Taxes or Duties:**

The tariff notified above does not include any taxes (including GST) or duties etc., on electrical energy that may be payable at any time in accordance with changes in any Law or Central Government/State Government Rules in force. Such charges, if any, shall be payable in addition to tariff charges by the consumer/user.

**1.14.7 Contingency:** - In case of any inconsistency between this Tariff schedule and the prevailing JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013, the provisions, meaning and the contents of the said Electricity Supply Code shall only prevail.

**2. Subsidised Tariff for FY 2023-24 to LT & HT Category Supply:**

**Low Tension supply (LT) :**

**2.1 LT Category -1: - Kutir-Jyoti/ BPL Connection**

**Applicability:** Applicable to all households who have been given connection under Kutir Jyoti Scheme or similar connection under any scheme of the State Govt. or Central Govt. for the benefit of poorer section. As per existing norms unless superseded by other new norms of KJS, if the total consumption in the last three (3) months exceeds 45 kWh, thereon the connection should be converted to LT Category-2 (Domestic).

**Permitted load:** Initially single light point connection which can be extended by one or two light points or as per the norms specified by competent Authority from time to time

**Tariff Rates:**

**A) Fixed Charge:** Rs.25.00 per month per Connection.

**B) Energy charge per month:****Metered Supply:**

All Unit	@ Rs 2.10 per kWh
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**Note: 1-** if the total consumption of any consecutive three (3) months is more than 45 kWh, thereon consumer shall be re-categorised/converted under normal domestic category permanently from the very 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> month of that consecutive three months, depending upon from such month instance when the total units consumed exceeds the specified limit of 45 kWh is noticed and there upon monthly bill will be served under domestic category instead of KJS. (clause 4.90 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments may be referred to for adoption).

**Note 2:** In case a Kutir Jyoti /BPL consumer gets converted to a domestic consumer, thereon such recategorized/converted consumer shall be required to deposit load security/meter security as applicable to domestic consumer and failure/disobey to pay amounts to contravene the provisions of clause-5.9 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with applicable latest amendments and liable for suitable penal action.

**2.2 LT Category-2: - Domestic**

**Applicability:** Applicable for supply of energy exclusively for domestic purposes only in domestic premises. **The Domestic consumer is qualified to be in this category if it is with attached kitchen/kitchen facility in the dwelling house.** The Tariff is applicable to supplies for general domestic purposes such as Light, Fans, Heating devices, Television, VCR/VCP, Radio, Refrigerator, Air- conditioner, lift motors and all others appliances only for bona-fide residential used. This will not be applicable to institutions conducting commercial activities of any nature.

**Tariff Rates:**

**A) Fixed Charge:** - Rs.65.00 per month per kW of Contracted Load

**B) Energy charge per month:** -

**Metered Supply:**

i)	First 100 kWh	@ Rs.5.10 per kWh
ii)	Next 100 kWh	@ Rs 5.95 per kWh
iii)	Above 200 kWh	@ Rs 6.75 per kWh

**Note:** *If any portion of the domestic connection is utilized for any different usage other than for dwelling purpose such as Non-domestic, Commercial, Industrial usage, etc., a separate connection shall be taken forthwith for such other load purposes under appropriate category, failing which the entire consumption made in that billing month shall be treated, as the case may be, in the corresponding category having higher applicable tariff amongst the utilised purposes.*

**2.3 LT Category-3: Non-Domestic / Commercial:**

**Applicability:** This tariff is applicable to all kinds of lights, all types of fans, heating devices, Television, VCR/VCP, Radio, Refrigerator, Air Conditioner, lift motors, Pumps and all other appliances for the **purpose of private gain** including other small power. This tariff includes power loads for non-domestic purposes like Government/Semi-government/Non-government offices, shops, hospitals, nursing homes, clinics, dispensaries, health centres, restaurants, bars, hotels, clubs, guest houses, circuit houses/rest houses, tourist lodges, picnic spots, resorts, farm/garden houses, clubs, markets, optical houses, public buildings, community halls, stadiums, meeting/conference halls, religious premises like churches, temples, mosques, gurudwaras, religious offices, all types of studios, tea stalls, professional chambers (like Advocates, Chartered Accountants, Consultants, Doctors, etc.), private trusts, marriage halls, public halls, show rooms, centrally air-conditioning units, commercial establishments, X-ray plants, diagnostic centres', pathological labs, carpenters and furniture makers, repair workshops, laundries, typing institutes, internet cafes, STD/ISD PCO's, FAX/photocopy shops, tailoring shops, Government/Non-Government Institutions, Schools, Colleges, Libraries, Research institutes, Boarding/lodging houses, Railway stations, Fuel/oil stations/pumps, Bottling or filling stations /plants, Service stations, Railway/Bus stations/terminals, All India radio/T.V. installations, printing presses, commercial trusts, societies, banks, financial institutions, theatres, cinema halls, circus, coaching institutes,

common facilities in multi-storeyed commercial offices/ buildings, public museums, crematoriums, graveyards, orphanages/recognized charitable institutions where *rental or fees of any kind are charged*, non-recognized charitable institutions, power supply to tele-communication system/towers and others applications not covered under any other categories.

**Tariff Rates:**

**A) Fixed Charge:** - Rs 85.00 per month per kW of Contracted Load.

**B) Energy charge per month:** -

**Metered Supply:**

a)	First 100 kWh	Rs. 6.55 per kWh
b)	Next 100 kWh	Rs. 7.25 per kWh
c)	above 200 kWh	Rs. 7.65 per kWh

**2.4 LT Category-4: - Public Lighting**

**Applicability:** Applicable to Public Street Lighting System under municipality, Town, Committee, Sub-Town/Village, etc. including Signal system and Road & Park lighting/illumination in areas of Municipality Town/Committee, Sub - Town/Village, etc.

**Tariff Rates:**

**A) Fixed Charge:** - Rs 70.00 per month per kW of Contracted Load.

**B) Energy charge per month:** -

**Metered Supply:**

For all units consumed	@ Rs.9.60 per kWh
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**2.5 LT Category-5: - Public Water Works (PWW)**

**Applicability:** Applicable to all public water supply system and sewerage system.

**Tariff Rates:**

**A) Fixed Charge:** - Rs 105.00 per month per kW of Contracted Load.

**B) Energy charge per month:** -

**Metered Supply:**

For all units consumed	Rs 9.80 per kWh
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**2.6 LT Category-6: - Irrigation and Agricultural**

**6a. Agriculture Category (LT):**

**Applicability:** This tariff is applicable to water pumping for Agricultural purpose by Individual farmers only.

**Tariff Rates:**

**A) Fixed Charge:** Rs 65.00 per month per kW of Contracted Load.

**B) Energy charge per month:** -

**Metered Supply:**

For all units consumed	Rs 4.55 per kWh
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**6b. Irrigation Category (LT):**

**Applicability:** This tariff is applicable to farmers pumping for Irrigation/Agricultural purpose by those farmers other than individual farmer.

**Tariff Rates:**

**A) Fixed Charge:** Rs 65.00 per month per kW of Contracted Load.

**B) Energy charge per month:** -

**Metered Supply:**

For all units consumed	Rs 4.55 per kWh
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**2.7 LT Category-7: - Small/Micro Industry**

**Applicability:** Applicable to all Industrial power consumers with demand of power up to 50 kW those are **not covered by Category No.3 (Supply to Non-Domestic/Commercial Purposes)**, such as all types of workshops using electricity for works such as steel fabrication works, motor body builders, Tyre re-treading works, power handloom industry, weaving houses, carpentry works. Saw mills, flour/rice mills, Oil mills, re-rolling mills, coffee/ginger/turmeric processing units, winery plants, Ice candy units, fodder cutting units, poultry farming/hatchery units, silk rearing/processing units, pisciculture, prawn culture, floriculture in green houses, mushroom production units, sugarcane crushing units, milk/meat processing units, bamboo processing units, paper/steel/aluminum recycling units, manufacturing/processing/preserving of goods such as cold storage plants/units, agriculture based industries, horticulture and any other type of industry where raw material is converted into finished products with the help of electrical motive power, printing press, **construction of power generating**

stations/substations and power supply to any generating stations etc. This will include domestic or commercial purpose usage within the industrial complex.

**Tariff Rates:**

**A) Fixed Charge:** Rs 70.00 per month per kW of Contracted Load.

**B) Energy charge per month: -**

**Metered Supply:**

For all units consumed	@ Rs 5.60 per kWh
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**2. Subsidized Tariff to HT Category Supply in FY 2023-24**

The tariffs are applicable for those consumer availing supply at voltage above 400V irrespective of connected load/contracted demand. It is mandatory to supply with voltage above 400V to consumer having a contracted Load of above **50 kW** or Contract Demand of above **55.56 kVA**, as per clause 3.2 of JERC for M&M (Electricity Supply Code) Regulations, 2013 with up to date amendments made.

**3.1 H.T. Category – 1: Commercial**

**Applicability:** This Tariff is applicable to similar purposes defined in LT Supply under Category-3 for Commercial Purposes usage.

**Tariff Rates:**

**A) Demand Charge:** Rs. 105.00 per month per kVA of Billing Demand.

**B) Energy charge per month:**

**Metered Supply:**

For all units consumed	@ Rs.8.90 per kVAh
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**3.2 H.T. Category - 2: Public Water Works (HT- PWW)**

**Applicability:** This tariff is applicable to similar purposes defined in LT Category-5 Supply for Public Water Works (PWW) and sewerage system.

**Tariff Rates:**

**A) Demand Charge:** Rs 105.00 per month per kVA of Billing Demand.

**B) Energy charge per month: -**

**Metered Supply:**

For all units consumed	@ Rs 9.60 per kVAh
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**3.3 H.T. Category - 3: Irrigation & Agriculture****3a. HT – Agriculture Category:**

**Applicability:** This Tariff is applicable to water pumping for agricultural purposes by Individual farmer only.

**Tariff Rates:**

A) **Demand Charge:** Rs 105.00 per month per kVA of Billing Demand.

B) **Energy charge per month:**

**Metered Supply:**

For All units consumed	@ Rs 5.15 per kVAh
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**3b. HT – Irrigation Category:**

**Applicability:** This tariff is applicable to farmers pumping water for Irrigation/Agricultural purpose by those other than individual farmers.

**Tariff Rates:**

A) **Demand Charge:** Rs.105.00 per month per kVA of Billing Demand.

B) **Energy charge per month:** -

**Metered Supply:**

For all units consumed	@ Rs 5.15 per kVAh
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**3.4 H.T. Category - 4: Medium Industry**

**Applicability:** This Tariff is applicable to similar purpose defined in LT Category-7 for Small industry purpose with Contract Demand up to 125 kVA or Contracted Load up to 100 kW.

**Tariff Rates:**

A) **Demand Charge:** Rs 105.00 per month per kVA of Billing Demand.

B) **Energy charge per month:** -

**Metered Supply:**

For all units consumed	@ Rs 8.00 per kVAh
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**3.5 H.T. Category- 5: Large Industry**



**Applicability:** This Tariff is applicable for supply of power to industrial consumers having license from designated authority of appropriate government and not covered under any other category, at a single point for industrial purposes with Contract Demand above 125 kVA or Contracted Load above 100 kW.

**Tariff Rates:**

**A) Demand Charge:** Rs 105.00 per month per kVA of Billing Demand.

**B) Energy charge per month: -**

**Metered Supply:**

For all units consumed	@ Rs 9.10 per kVAh
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### 3.6 H.T. Category - 6: Bulk Supply within the State

**Applicability:** This tariff is applicable for all installations, including mixed loads similar to LT category 2 & 3 such as private sector installation, educational institution, defense installation, government & public sector offices & complexes and Hospital etc., that will arrange their own distribution system of power within the premises with the approval of competent authority. This will not include industrial complexes consisting mixed load of LT category 2 & 3.

**Tariff Rates:**

**A) Demand Charge:** Rs 105.00 per month per kVA of Billing Demand.

**B) Energy charge per month: -**

**Metered Supply:**

For all units consumed	@ Rs 9.25 per kVAh
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### 4. Full Cost Tariff (i.e., Without Govt Subsidy) for FY 2023-24

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW/kVA/pm)	Energy Charges (Rs./kWh or kVAh)
	<b>LT SUPPLY (FCT)</b>		
1	<b>Kutir Jyoti</b>	<b>Rs./Connection</b>	<b>Rs./kWh</b>
	All units (Upto 45 kWh/ 3 Months)	25/Connection	3.95
2	<b>Domestic</b>	<b>Rs./kW</b>	<b>Rs./kWh</b>
	First - 100 kWh/Month	65	6.35
	Next 100 kWh/Month	65	7.41
	Above 200 kWh/Month	65	8.40
3	<b>Non-Domestic/Commercial</b>	<b>Rs./kW</b>	<b>Rs./kWh</b>
	First - 100 kWh/Month	85	7.51
	Next 100 kWh/Month	85	8.32

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW/kVA/pm)	Energy Charges (Rs./kWh or kVAh)
	Above 200 kWh/Month	85	8.78
4	Public Lighting	70	9.16
5	Public Water Works	105	9.23
6	a) Agriculture (Individual)	65	6.83
	b) Irrigation (Others)	65	6.83
7	Small Industry	70	8.67
	<b>HT SUPPLY (FCT)</b>	<b>(Rs./kVA)</b>	<b>(Rs./kVAh)</b>
1	Commercial	105	7.40
2	Public Water Works	105	8.04
3	a) Agriculture (Individual)	105	6.74
	b) Irrigation (Others)	105	6.74
4	Medium Industry	105	7.61
5	Large Industry	105	7.24
6	Bulk Supply	105	8.24

## 5. Temporary Power Supply

**Applicability:** Temporary power supply shall be given through correct meter and carried out as per procedure laid down in clause 4.56 to 4.70 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 along with latest amendments. If the applicant provides the materials for service line, it shall be treated as per clause 4.133 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments. If the licensee/MSPDCL desired to delegated to power to various level of officers, it may be done through an executive order within the licensee/MSPDCL. However, in all cases, overall duration should not violate the supply code mentioned above. If the service line is arranged by consumer, it shall be treated as per clause 4.133 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments and be returned to the consumer after the period is over. The Bill shall be served at the following rates:

### Tariff Rates:

- A) Fixed / Demand charge:** 1.5 times the rate of fixed/demand charge of the applicable tariff category for which power supply is given.
- B) Energy charge per month:** 1.5 times the rate of the highest rated slab of the applicable tariff category for which energy is supplied.

**6. Computation of energy consumed for un-metered supply:****6.1: Street light connection & unmetered consumers:**

**As per Section-55 of Electricity Act 2003 and as per clause 5.1 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments, no installation should be serviced without fixing appropriate and correct meter. Therefore, after elapse of many more years from the E. Act 2003 effective date and after elapse of several years from the effective date of the said supply code, the formula for computation of energy consumed for unmetered supply is withdrawn.** Henceforth, MSPDCL should invariably install energy meters for all category of consumers.

**6.2: Short period of unmetered supply:** - For un-meter (meter not available) supply as a result of defective, burnt, lost meter shall be treated as per 6.11 – 6.13 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with up to date amendments.

**6.3: For Un-authorized consumer/Theft (includes by-pass of meter)/Pilferage and cases cover by section 135 of the Act:** - The energy consumed shall be computed as per Annexure 11.1.19 Of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with applicable up to date amendments. The energy so computed shall be evaluated as follows: -

**(a) Load less than 10 kW**

(1) **First instance:** - Three (3) times of the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was assessed as consumed/utilised.

(2) **Second and subsequent instance:** - Six (6) times of the rate of the applicable tariff (fixed and variable charges) for the entire quantum stolen energy was assessed as consumed/utilised.

**(b) Load exceeding 10 kW**

(1) **First instance:** Three (3) times the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was assessed as consumed/utilized.

(2) Second and subsequent instance: - Six (6) times the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was assessed as consumed/utilized.

**Note:** - Additional punishment of theft shall be as per Electricity Act 2003 (with latest amendment) and as per the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with applicable latest amendments.

## 7. Miscellaneous Charges

### 7.1 Meter Rent

**7.1.1 Meter Rent for non-prepaid meters:** Monthly charges for hiring of the meter, indicator payable shall be as follows:

a)	AC, Single phase Energy meter, whole current	<b>Rs. 10.00 per month</b>
b)	AC, Three phase Energy meter, whole current	<b>Rs. 20.00 per month</b>
c)	AC, three phase Energy meter, CT operated	<b>Rs. 50.00 per month</b>
d)	AC, three phase Energy meter, CT & PT operated	<b>Rs. 500/- per month</b>

**7.1.2 Meter Rent for Pre-Paid Meters:** Monthly charges for hiring of the meter, indicator payable shall be as follows:

a)	AC, Single phase PP, Energy meter, whole current	<b>Rs. 20.00 per month</b>
b)	AC, Three phase PP, Energy meter, whole current	<b>Rs. 40.00 per month</b>

### 7.2. Pole/Tower usage charge per month

**7.2.1 For supporting of internet/media/telephone cables:**

**This charge shall be borne by Operator/Distributor of visual media network.**

- Rs.10.00 per pole per cable per month in case of internet cable/ media cables/visual media cables.
- Rs.20.00 per pole per month per cable in case of landline telephone cable. **(a cable having up to 5 pair of lines shall be taken as one cable for this purpose)**  
Telephone cable having more than 5 pairs shall be considered as 2, 3 etc, by dividing actual number of pairs by 5 to arrive at equivalent number of cables. Any fraction shall be rounded to next higher integer.

### 7.3 Other charges for meter:

**i) Meter shifting charge:**

- (1) Rs 100.00 per shifting if resulted from reconstruction / modification of building and at consumer's request. Required material if need be borne by Consumer himself.
- (2) Free of cost if shifting is done in the interest to licensee. Required material is borne by licensee.

*Meter shifting shall be carried out as per Chapter – 5 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest up to date amendments.*

**ii) Replacement of meter:** - Licensee shall have stock of energy meter as per clause 5.51 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendments. Replacement of meter shall be carried out as per clause 5.31 to 5.50 of the same code mentioned above. Charges for other materials will be extra.

*However, in case of replacement of post-paid meter by prepaid meter by the utility, no meter replacement charge shall be borne by the consumer and the entire charge shall be borne by the utility.*

**iii) Execution charge for re-installation/installation of meter: -**

- a) For existing consumer shall be at free of cost.
- b) For disconnected consumer being re-connected (if meter is removed) shall be charged @ Rs 75.00.
- c) For new consumer, it shall be included in the cost of service connection under the nomenclature of **Execution Charges**.

**iv) Cost of Energy Meters supplied by Licensee:**

As per the Licensee's purchase rate plus testing fee, if supplied from the Licensee (energy meters approved / tested by the Licensee only shall be used. *Prima facie energy meters installed for usage shall be of those approved or tested & approved by the Licensee*).

However, when the cause leading to subsequent replacement is either on account of manufacturing defect or fault of licensee then, it shall be at free of cost.

**7.4 Charges for testing of Meters at the request of consumers:** (Testing charge is inclusive of costs of meter re-sealing materials/equipment).

Sl.No	Type of Meter for testing	Charges payable
i)	For AC, Single phase LT energy meter	Rs.50.00 per meter per testing.
ii)	For AC, Three phase LT energy meter <b>whole current</b>	Rs.75.00 per meter per testing.
iii)	For AC, Three phase LT energy meter, CT operated	Rs.100.00 per meter per testing.
iv)	For Energy meter, AC Three Phase, CT & PT operated	Rs.150.00 per meter per testing.
v)	For any other type of meter, HT supply	Rs.200.00 per meter per testing.

*In case the meter supplied by the Licensee fitted to the consumer premises is found to be defective from initial fitting, testing and replacement of meter shall be carried out as per clause 5.31 to 5.50 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendments.*

#### 7.5 Testing of Consumer's Installation:

The first test and inspection will be carried out free of cost as per clause 4.47 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity supply Code) Regulations, 2013 with up to date amendments. Should any further test or inspection be necessitated due to fault in the installation or due to non-compliance with the condition of supply by the consumer an extra charge of Rs. 100.00 per test payable in advance, shall be levied. In the event of the consumer failing to pay the testing charge in advance within stipulated time, the Licensee will be at liberty to disconnect the consumer's premise from the supplier's main.

#### 7.6 Disconnection and Reconnection

(1) **Disconnection:** -Disconnection of an installation in all cases will be **free of charges**.

(2) **Reconnection:** - Reconnection charge shall be as follows: -

Sl.No	Description	Reconnection charge
(i)	For AC single phase LT supply	<b>Rs.80.00</b>
(ii)	For AC three phase LT supply	<b>Rs.150.00</b>
(iii)	For AC HT supply	<b>Rs.400.00</b>

*Note: - Extra material if required will be chargeable additionally.*

### 7.7 Charges for change of category:

Change of category will be carried out as per clause 4.72 to 4.80, clause 4.85 to 4.86 and 4.90 to 4.93 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity supply Code) Regulations, 2013 along with up to date amendments.

### 7.8 Charges for Replacement of Connection Wire, Cut-out, Fuse, Meters etc.:

Cost of replacement after initial fixation of connection wire, cut-out, fuses, meters etc. will be borne by the consumers and shall be payable by the consumer in advance as per purchase rate of the Licensee. If the Licensee supplies the materials or the consumer may arrange the required materials as per the required specifications of the Department.

**The execution charge shall be as given below:**

#### (1) For Cable and wire:-

Sl.No	Description	Execution charge
(a)	Single phase connection	Rs. 400.00 per connection.
(b)	Three phase connection	Rs. 600.00 per connection.
(c)	HT three phase connection	Rs. 900.00 per 100 meters of the HT line.

#### (2) For Cut-Out & Fuse: -

1) per Cut-Out - Rs 15.00
2) per Fuse - Rs 5.00

#### (3) For Replacement of meters (if cost of meter arranged by consumers)

a) Single Phase: Rs.40/-	b) Three Phase: Rs.60/-
c) CT operated: Rs.80/-	d) CT & PT operated: Rs.80/-

**Works shall be executed only on producing the proof of payment receipt from concerned office.**

**Note: If Licensee is providing with the meter for replacement, then the extra cost as specified by the Licensee will have to be paid including any applicable taxes.**

### 7.9 Re-rating of Installation: - This charge is for meeting expenses toward spot verification of load and other connected recording works. Fees for re-rating of the consumer's

installation at the request of the consumer shall be Rs.100.00 per rerating per connection. Inspection for re-rating should be carried out only on advance payment in the concerned office and on physical production of such payment receipt.

*These charges shall be payable by the consumer in advance. The aforesaid charges do not include the charges payable by the consumer for other works connected due to change of connected load. Rerating shall be carried out as per clause 4.94 to 4.107 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendments made.*

#### **7.10 Security Deposit:**

##### **(a) Load Security:**

The amount of load shall be calculated as per the procedure prescribed in clause 4.123 – 4.127 and determine as per Annexure 11.18 of the JERC for M&M (Electricity Supply Code) Regulations, 2013. **However, consumer with prepaid meter shall not be required to pay load security deposit.**

##### **(b) Meter Security (if Licensee's meter is used):**

The amount of Security deposit towards meter security shall normally be the price of the meter as fixed by the licensee from time to time in line with **Section 55 of Electricity Act 2003.**

#### **7.11 Charges for Replacement of tamper-proof Meter Box:**

For AC single phase LT or three phases LT without CT or with CT, the charge will be as per Licensee's purchase rate in case the energy meter box is replaced by the Licensee from its store.

**The execution charges shall be as follows:**

<b>a) Single Phase: Rs.20/-</b>	<b>b) Three Phase: Rs.30/-</b>
<b>c) CT operated: Rs.40/-</b>	<b>d) CT &amp; PT operated: Rs.40/-</b>

#### **7.12 Charges for Testing of Transformer Oil:**

- (a) For first sample of oil: Rs.150.00 per sample.
- (b) For the next additional sample of oil of the equipment received at the same time of the first sample: Rs.100.00 per sample.

#### **7.13 Service Lines & Service Connection:**



(i) **Type of Service Connection:** Type of service connection and distance for service connection line length will be as per clause 4.2 read with clause 5.10 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013.

(ii) **Cost of Service Connection:** As stipulated in clause 4.37 and 4.131 of the Joint Electricity Regulatory Commission for Manipur and Mizoram **(Electricity Supply Code) Regulations, 2013**. If the consumer desires to arrange service connection materials, the Department (not below rank of Junior Engineer concerned) will check all the materials.

**7.14 Mutation Fee:** Mutation fee i.e. fee for change of name shall be Rs.50/- per change. This shall be carried out as per clause 4.81 to 4.84 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with up to date amendments made.

**7.15 Cost of Application Form:** The application form shall be free of cost vide clause 4.14 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with up to date amendments made.

**7.16 Operation & Maintenance (O&M) Charge on dedicated assets: -**

The O & M charge of assets created out of such amount received without any obligation to return the same and no interest costs attached to such subvention, from consumer contribution, Deposit work and any similar nature shall be as follows: -

- (1) The completion costs shall be escalated at the rate of 4 % per annum from the year of completion to arrive the costs of the assets for 2015-16 level.
- (2) The annual O & M charges/expenses shall be 5 % from the 2015-16 level costs.
- (3) The O & M charges/expenses for each subsequent will be determined by escalating the base charges/expenses determined above for 2015-16, at the escalation factor of 5.72 % to arrive at possible O & M charges / expenses for each year.



**ANNEXURES**

## ANNEXURE - I

**MINUTES OF THE 23<sup>rd</sup> MEETING OF THE STATE ADVISORY COMMITTEE OF MANIPUR****Venue: Royale Hall, Hotel Classic, North AOC, Imphal, Manipur****Date & Time: 14<sup>th</sup> March 2023, 11:00 AM**

The Chairman of the Committee, Mr. Lalchharliana Pachuau, Chairperson of the Joint Commission for Manipur & Mizoram chaired the Meeting, the Meeting started at 11:00 AM.

The Chairman welcomed all the Committee Members and Special Invitees. Then he invited the Chief (Engg.) of the Commission to take up agenda for discussion and agenda wise discussion was started. The list of Members and Special Invitees who attended the Meeting are appended.

**Agenda No.1. Confirmation on the Minutes of the 22<sup>nd</sup> Meeting of the SAC, Manipur held on 14.03.2022.**

The Chairman requested the Members on the observations made on the Minutes and after affirmations obtained from all the Members, the Minutes was declared as confirmed.

**Agenda No. 2. Action taken report on the following items discussed in the 22<sup>nd</sup> Meeting of the State Advisory Committee.**

- i) The Chairman requested the MSPDCL to give report on the up to date report of the installation of Prepaid Meters and operation of vending counters in rural areas for billing and collection of revenue. The MSPDCL replied that the total number of pre-paid consumers in Manipur as on February 2023 is 4,53,879 out of 512000 numbers of consumers which is 88.65%. Financial year wise detail report on the number of pre-paid meters installed by MSPDCL is provided below:-

Year	Yearly Prepaid meter installed
2013-14	14,000
2014-15	71,000
2015-16	95,000
2016-17	1,21,000
2017-18	19,943
2018-19	6,353
2019-20	No installed due to corona / covid 19
2020-21	480

Year	Yearly Prepaid meter installed
2021-22	48,603
2022-23	77,500
Total	4,53,879

The total number of existing vending stations for billing and revenue collections in Manipur under MSPDCL is 42 nos out of which 26 nos are in rural areas.

- (ii) The Chairman requested the MSPDCL to give report of outstanding bills payment and up to date status (latest compilation) of state government's departments outstanding dues. The MSPDCL replied the outstanding dues as on 31 January 2022 was Rs. 73.93 crores from 1<sup>st</sup> February to 31<sup>st</sup> March 2022 the state government departments paid Rs. 10.89 crores.

In the FY 2021-2022, the total payment by state government departments against their outstanding dues amounts to a sum of Rs. 77.15 crores against the RE budget allocation for FY 2021-21 of Rs. 80.77 crores for payment of electric and water charges.

The outstanding dues against these state govt. departments as on 31<sup>st</sup> March, 2022 after the adjustment of all payments amounts to Rs.74.36 crores.

**A summary report is provided below:**

1)	Outstanding Dues as on 31 <sup>st</sup> January, 2022	Rs.73.94 Crores
2)	Bill from 1 <sup>st</sup> Feb, 2022 to 31 <sup>st</sup> March, 2022	Rs. 11.31 Crores
3)	Payments during the period from 1 <sup>st</sup> February, 2022 to 31 <sup>st</sup> March, 2022	Rs. 10.89 Crores
4)	Total outstanding Dues as on 31 <sup>st</sup> March, 2022 (Sl. No. (1+2)-3)	Rs. 74.36 Crores

1)	Total arrear amount from the previous year (FY 2020 – 21)	Rs. 84.55 Crores
2)	Total billed amount during the FY 2021 – 22	Rs. 66.96 Crores
3)	Total payments during the FY 2021-22	Rs. 77.15 Crores
4)	Total outstanding dues as on 31 <sup>st</sup> March, 2022 (Sl.No.(1+2)-3)	Rs. 74.36 Crores

**Present status of State Government outstanding dues & payment for FY 2022-23**

The estimated outstanding dues against all state Govt. Departments as on 31<sup>st</sup> March, 2023 after the adjustment of all payments as on date amounts to Rs. 59.45 Crores and

the total payment details as on date is given below: -

1)	Total arrear amount from the previous year (FY 2020 – 21)	Rs. 74.36 Crores
2)	Total estimated billed amount during the FY 2022 – 23	Rs. 69.72 Crores
3)	Total payments during the FY 2022-23 as on date	Rs. 84.63
4)	Total estimated outstanding dues as on 31 <sup>st</sup> March, 2023 (Sl.No.(1+2)-3)	Rs. 59.45 Crores

In this regard Professor Ch. Ibohal Meitei has stated that Government is taking care for payment of outstanding dues if MSPDCL pursue it vigorously. He further suggested MSPDCL to get division-wise monthly power consumption with billed amount and outstanding dues to identify in which division more effort is required to give to increase efficiency of revenue collections. The Commissioner (Power) supplemented the information requirement.

Replying the Chief (Engg.) request to submit the requisite information, the MSPDCL stated that division wise identification of details information could be ready and it shall be submitted to the Commission by June, 2023 for the period from January to March, 2023. The Chairman stated that energy sold and billing should be monitored all the time. All members of SAC were happy to see the progress made in the payment of outstanding dues in respect of various departments.

(iii) The Chairman requested the MSPCL to give up to date status of works of SAMAST scheme, and also may kindly report of energy loss estimation at 132 kV level and 33 kV level during FY 2022-23 for further deliberation. The MSPDCL gave the reports as below:

**1. SAMAST Status:**

The common NIT for SAMAST implementation in NER states is prepared by SAMAST committee under NERPC under PSDF funding wherein the NIT was floated in two parts viz.

- I. For supply, installation, testing and commissioning of 0.25 class ABT meters and automated meter reading (AMR) solutions.
- II. For supply, installation, testing and commissioning of IT solutions.

Two separate LOAs were placed by NERPC on 23-09-2021. The metering part is awarded to M/s Genus Power infrastructure Limited and the IT Solutions Part is awarded to Price water house Coopers Private Ltd.

**Project status:**

**I. For Metering Part:**

Genus Power Infrastructure Limited has completed field survey. Out of 475 meters, 24 meters have been installed as part of SAMAST Pilot. Inspection of the remaining lot of meters

have been completed and dispatched instruction has been issued for the same.

**II. For IT Solutions Part:**

Pricewaterhouse Coopers Private Ltd has completed field survey for software. The Factor Acceptance Testing of the different software modules has been completed. The hardware installation for Data Centre is in progress.

As per the LOA, the project is estimated to be completed by March, 2023. However, there is delay in the completion of SAMAST project due to technical issues of which few reasons are stated below:

A. **Survey Inadequacy (Genus):** It was observed that many of the CTR values collected during survey needed to be checked and revised. This also led to the delayed verification in the number of -/5 and -/1A meters required.

**B. Delayed Completion of Pilot (Genus):**

The validation of the meter values installed during pilot was time-consuming due to various reasons such as mismatch, loose connection, etc. Also, the flow of the meter data from the metering site to the server was intermittent due to various software issues. Resolution of these issues caused delay in the pilot project. Pilot meter installation was completed in 5<sup>th</sup> December 2022, but 100% meter data was reported on 25<sup>th</sup> January, 2023.

**C. Server Readiness (PwC)**

Due to global shortage of semiconductors, the supply of various hardwares for the Data Centre was delayed. This hindered the timely installation of the Data Centre.

**2. Energy loss estimation of MSPCL at 400kV, 132kV level and 33kV level during FY 2022-23:**

The accurate loss derivation is not possible at present due to the lack of complete and precise metering. After full implementation SAMAST scheme losses at various voltage levels may be ascertained.

Based on the limited data available at our disposal, few transmission and sub-transmission lines as well as few 400/132kV and 33/11 kV substations are identified as sample element for loss estimation for the respective voltage level. Using these sample elements, total loss of 400kV, 132kV and 33kV system is calculated as 7.5% for the FY 2022-23. The details of arriving the estimated total loss percentage of 7.5% is shown below:

PERCENTAGE LOSS ESTIMATION FOR MSPCL 2022-23			
(A) SAMPLE OF 400KV TRANSFORMATION LOSS			
SL. NO.	NAME OF SAMPLE 400/132 KV STATION	TRANSFORMATION LOSS (IN%)	
1	THOUBAL	0.5	
(B) SAMPLE OF 132/33KV TRANSFORMATION LOSS			
SL. NO.	NAME OF SAMPLE 132/33KV STATION	TRANSFORMATION LOSS (IN%)	
1	ELANGKHANGPOKPI	1.212	
(C) SAMPLE OF 33/11KV TRANSFORMATION LOSS			
SL. NO.	NAME OF SAMPLE 33/11 KV STATION STATION	TRANSFORMATION LOSS (IN%)	
1	JNIMS	1.1	
(D) SAMPLE OF 400 KV LINE LOSS			
SL. NO.	NAME OF SAMPLE 44 KV LINE	LINE LOSS (in%)	
1	THOUBAL-PG	0.7	
(E) SAMPLE OF 132 KV LINE LOSS			
SL. NO.	NAME OF SAMPLE 132 KV LINE	LINE LOSS (in%)	
1	YUREMBAM-KARONG	1.083	
(F) SAMPLE OF 33 KV LINE LOSS			
SL. NO.	NAME OF SAMPLE 33 KV LINE	LINE LOSS (in%)	
1	MANTRIPUKHI-IBUDHOU MARJING	3.0	
TOTAL LOSS OF 400KV, 132 KV AND 33KV SYSTEM (ESTIMATED) IN %=		400kv line loss + 132kv line loss + 33kv line loss + 400/132kv transformation loss + 132/33kv transformation loss+ 33/11 kv transformation loss =	7.5

**ESTIMATION FOR SAMPLE TRANSFORMATION LOSS FOR FY 2022-23**

400/132kv THOUBAL SUBSTATION						
Month	400 kv		132kv		Total Transformation Loss	Loss %
	Total incoming	Energy (MU)	Total Outgoing	Energy (MU)		
Oct-22	105 MVA XMER (HV SIDE)	17473.2	132Kv Incomer (XMER LV SIDE)	17384.8	88.360	0.5057



**SAMPLE LOSS ESTIMATION FOR 132/33 KV TRANSFORMER**

132/33/11 kV ELANGKHANGPOKPI SUBSTATION						
Month	132kV		33kV		Transform- ation Loss Total	Loss %
	Total incoming	Energy (MU)	Total Outgoing	Energy (MU)		
May-22	20 MVA TFR-1	2.200	33KV INC-I	2.180	0.0514	1.1599
	20 MVA TFR-2	2.231	33 KV INC-II	2.200		
	Total	4.431	Total	4.380		
June-22	20 MVA TFR-1	2.160	33 KV INC-I	2.130	0.050	1.1612
	20 MVA TFR-2	2.180	33 KV INC-II	2.160		
	Total	4.340	Total	4.290		
Jul-22	20 MVA TFR-1	2.391	33 KV INC-I	2.360	0.0636	1.3176
	20 MVA TFR-2	2.436	33 KV INC-II	2.403		
	Total	4.827		4.763		
Average						1.2129

**SAMPLE LOSS ESTIMATION FOR 33/11 KV TRANSFORMER**

33/11 KVJNIMS						
Month	Input		Total 11kV outgoing		transformation loss Total	Loss %
Sep-22	INCOMER I	0.2079	WATER SUPPLY	0.1486	0.005	1.14
	INCOMER II	0.1999	STATION	0.0021		
			JNIMS	0.2525		
	<b>Total</b>	<b>0.407808</b>		<b>0.403</b>		

**SAMPLE LOSS CALCULATION FOR 400KV, 132KV AND 33KV SUB-TRANSMISSION****LINES (UPDATED / TRUED UP)**

LOSS ESTIMATION FOR 400KV THOUBAL-PG LINE				
Month	Sending end	Receiving end	TRANSFORMATION LOSS (MU) (3)=(1)-(2)	Loss%
Oct-22	9.34591	9.27411	0.0718	0.77
				0.77
LOSS ESTIMATION FOR 132KV YUREMBAM KARONG LINE-PG LINE				
Month	Sending end	Receiving end	TRANSFORMATION LOSS (MU) (3)=(1)-(2)	Loss%
Sep-22	10.989	10.87	0.11900	1.083
				1.083

LOSS ESTIMATION FOR 400KV THOUBAL-PG LINE				
Month	Sending end	Receiving end	TRANSFORMATION LOSS (MU) (3)=(1)-(2)	Loss%
LOSS ESTIMATION FOR 33 KV MANTRIPUKHRI-IBUDHOU MARJING LINE				
Month	Sending end	Receiving end	TRANSFORMATION LOSS (MU) (3)=(1)-(2)	Loss%
June-22	0.873	0.846	0.027	3.09

The MSPCL informed the Committee that the SAMAST work was to be completed by March, 2023 but there is delay in works due to scarcity of semi-conductors and also due to Covid 19 Pandemic and the works is to be completed soon. And that 132 & 33 KV lines will be monitored better.

**Agenda 3: Determination of ARR & Retail Tariff of MSPDCL for FY 2023 – 24 and ARR & Transmission Tariff of MSPCL for FY 2023-24.**

Power Point Presentation on their tariff petition was made by MSPDCL. The MSPDCL stated that the ARR petition of MSPDCL includes the tariff petition for FY 2023-24, Annual Performance Review of FY 2022-23 & the Final true-up of FY 2021-22 and ARR of 3<sup>rd</sup> Control Period FY 2023-24 to FY 2027-28. The proposed ARR for FY 2023-24 works out to Rs. 1005.66 crores. Further, the total revenue from sale of power at existing tariff and surplus power sale works out to Rs. 621.15 crores. As such, the uncovered gap for FY 2022-23 works out to Rs. 384.52 crores.

The tariff petition includes the tariff proposal for FY 2023-24 and as such the proposal for covering the above-mentioned gap for FY 2023-24 is included in the petition. The uncovered gap is proposed to be covered through increase in tariff (15%) hike and subsidy support of Rs.300.93 crores from State Government. In this regard, Mr. S.Rishikumar Singh stated that the increase in tariff rate for the industries has been a big burden and it has become difficult to sustain themselves and stated that for improvement of the state and especially for the industries there should be no tariff hike. Professor Dr. Ch.Ibohal Meitei also stated that there should not be a tariff shock and that the increase in the tariff should be moderate.

The Meeting ended at 2:30 pm with vote of thanks from the Chair.

Sd/-

Sd/- LALCHHARLIANA PACHUAU

**Chairperson**

**Memo No. H. 11019/26/18-JERC**

**Dated Aizawl, the 27<sup>th</sup> March, 2023**

Copy to:

1. Secretary to Hon'ble Chief Minister, Govt. of Manipur for kind information to the Hon'ble Chief Minister.
2. P.S. to Hon'ble Power Minister Govt. of Manipur for kind information to the Hon'ble Power Minister.
3. P.P.S. to Chief Secretary, Govt. of Manipur for kind information to the Chief Secretary, Govt. of Manipur.
4. Secretary, Power Department, Govt. of Manipur for kind information and for taking necessary action on the Minutes of the Meeting.
5. All Members / Invitees of the State Advisory Committee for kind information and for taking necessary action on the Minutes of the Meeting.
6. Guard File.

## List of Members and Participants attended the 23<sup>rd</sup> Meeting of State Advisory Committee of Manipur

**Date & Time:** 14<sup>th</sup> March, 2023 (Monday) 11:30 a.m.

**Venue:** Hotel Classic, North AOC Royale Hall, Imphal.

Sl. No.	Name of participant	Designation & Organisation
1	Mr. Lalchharliana Pachuau	Member, JERC (M&M)
2	Mr. Richard Zothankima	Secretary SAC Manipur
3	Mr. H.Thanthianga	Chief Engineering, JERC (M&M)
4	Dr. Ch. Ibohal Meitei	Professor, Manipur Institute of Management Studies, Manipur University
5	Mr. Nobert Khayi	Social Worker, West Phungreitung, Ukhrul
6	Mr. S.Rishikumar Singh	President, All Manipur Entrepreneurs Associations
7	Miss H.Lalthomawi	Advocate, Tipaimukh Road, Hiangtam, Lamka
8	Mr. Sailesh Kumar Chourasia	Commissioner (Power)
9	Mr. N. Sarat Singh	M.D., MSPCL
10	Mr. Ranendra Nandinbam	G.M. (Finance), MSPCL
11	Mr. Th. Sushanta Singh	Manager (SLDC), MSPCL
12	Mrs. N.Purnima	Dy. Manager, MSPDCL
13	Mr. Laishram Ritu	DGM (S.O), MSPCL
14	Ms. Athokpam Sujata Devi	DM, SLDC, MSPCL
15	Ms. Manisha Devi Thokchom	AM (ED-TECH), MSPCL
16	Ms. Irom Roji Devi	DM (ELECTRICAL), MSPCL
17	Ms. M.Ashalata	DGM, MSPCL
18	Mr. Kh.Umakanta	DM (ED-TECH) MSPCL
19	Mr. Madhu Dalal	Consultant, MSPCL
20	Mr. Ranjan Warengbam	Manager, Ed (Tech) MSPCL
21	Mr. H. Roben Singh	GM
22	Mr. M.Ashalata	Dy. Gen. Manager (Tech)
23	Mr. Mutru Kalpe	CO(ED-TECH), MSPCL
24	Mr. A.Satyabrata Singh	GM (MSPCL)
25	Mr. L. Sarjikumar Sharma	DGM (MD-I), MSPCL
26	Mr. K.H. Davidkr Singh	DGM (MD-I) MSPCL
27	Mr. H.Debeswar Singh	DGM (SSD-II) MSPCL
28	Mr.Y.Daywanta	Manager (Projects), MSPDCL
29	Mr. Th.Satyajeet Singh	DM (MSPDCL)
30	Mr. Piyush Lohia	Consultant (PWC) to MSPDCL

Sl. No.	Name of participant	Designation & Organisation
31	Mr. H.Romen Singh	Manager (Commercial)
32	Mr. B.Bikram Sharma	DM (MSPDCL)
33	Mr. M.Binot	AM (MSPDCL)
34.	Mr. Niranjana Oinam	Reporter (Poknapham)
35.	Mr. Jasobanta Singh	GM, SLDC
36.	Mr. M. Rabi Singh	GM (Commercial), MSPDCL

## ANNEXURE - II

**LIST OF PERSONS ATTENDED PUBLIC HEARING ON**  
**TARIFF PETITION FOR FY 2023-24 IN RESPECT OF MSPDCL, MANIPUR STATE**

Venue: **Hotel Classic, North AOC, Regency Hall, Imphal, Manipur.**

Date & Time: **15<sup>th</sup> March, 2023 (Wednesday) from 11:00 a.m. to 01.00 p.m.**

Sl. No.	Name	Designation
1.	Mr. LALCHHARLIANA PACHUAU	CHAIRPERSON, JERC (M&M)
2.	Mr. H. THANTHANGA	CHIEF (ENGINEERING), JERC (M&M)
3.	Mr. M. RABI SINGH	GM (COMMERCIAL)
4.	Mr. TH. SATYAJEET SINGH	DM, MSPDCL
5.	Mrs. N. PURNIMA	DM, MSPDCL
6.	Mr. HIJAM ROMEN SINGH	MANAGER (COMMERCIAL)
7.	Mr. K. HARI PRASAD	CONSULTANT, JERC (M&M)
8.	Mr. K. SANATOMBA	GEN. SECY., AMPCA
9.	Mr. S. CHAOBA SINGH	PRESIDENT, AMPCA
10.	Mr. PIYUSH LOHIA	CONSULTANT TO MSPDCL, MANAGER, PWC
11.	Mr. K. GAIKULUNG	GM, MSPDCL
12.	Mr. A. IBOTOMBA	GM, MSPDCL
13.	Mr. Y. DAYANTA	MANAGER (PROJECTS), MSPDCL
14.	Mr. ALLAUDDIN ANSARI	PROJECT ENGINEER (RECL)
15.	Mr. HIMANSHU MIOBA	MANAGER (RECL)
16.	Mr. N. ASHAPURNA	C-C-O, JERC (M&M)
17.	Mr. RICHARD ZOTHANKIMA	SECRETARY, JERC (M&M)

## ANNEXURE – III

MSPDCL - Expected Revenue in FY 2023-24 at existing and Subsidised Tariffs													
Sl. No.	Category	Consumers	Contracted Load (in kW)	Annual energy Sales (in MU)	Sales/ Consumer /Month (in kWh)	Subsidised Tariff		Revenue /month				Annual Revenue (in Rs lakh)	Average realisation (Rs/kWh)
						Fixed Charge (Rs/kWh/ kVA)	Energy charge (Rs./kWh/ kVAh)	Total Fixed Charges (in Rs lac)	Energy charge/ Consr (in Rs.)	Total energy charge (in Rs lakh)	Total Revenue (in Rs lakhs)		
1	2	3	4	5	6	7	8	9	10	11	12=(9+11)	13=(12)*12	14
1	Domestic LT							1					
1)	Kutir Jyoti					per connection							
	All units	13942	6967	3.96		25	2.10	3.49	0.00	6.93	10.42	86.65	2.19
2)	Normal Domestic												
i)	0 - 100 kWh	418856	611141	499.96	99.47	65	5.10	397.24	0.00	2124.82	2522.06	25895.09	5.18
ii)	101 - 200 kWh	38997	88221	72.17	154.22	65	5.95	57.34	0.00	357.85	415.19	4351.53	6.03
iii)	Balance >200 kWh	16835	43109	35.27	174.57	65	6.75	28.02	0.00	198.37	226.39	2408.50	6.83
	Sub Total (2)	474689	742472	607.40	106.63	65		482.61	0.00	2681.04	3163.65	32655.11	5.38
	Total Domestic LT	488631	749439	611.36	104.26			486.10	0.00	2687.97	3174.07	32741.76	5.36
2	Non-Domestic/Commercial												
a)	Low Tension												
i)	0 - 100 kWh	17748	46583	35.01	164.40	85	6.55	39.60	0.00	191.10	230.70	2332.86	6.66
ii)	101 - 200 kWh	5641	10021	7.53	111.26	85	7.25	8.52	0.00	45.51	54.03	554.60	7.36
iii)	Balance >200 kWh	6198	38438	28.89	388.45	85	7.65	32.67	0.00	184.18	216.85	2242.78	7.76
	Commrl- LT	29587	95042	71.43	201.20	85		80.79	0.00	420.79	501.58	5130.24	7.18
b)	Commercial HT	1172	27248	23.89	1698.82	105	8.90	28.61	15119.50	177.20	205.81	2155.01	9.02
	Commercial (LT&HT)	30759	122290	95.33	258.26			109.40		597.99	707.39	7285.245	7.64
3	Public Lighting	505	1227	5.73	944.93	70	9.60	0.86	9071.33	45.81	46.67	550.58	9.61
4	Public Water Works												
a)	Low Tension - PWW	43	452	1.38	2705.30	105	9.80	0.47	26511.94	11.27	11.74	135.71	9.83
b)	High Tension - PWW	221	18312	28.97	10944.21	105	9.60	19.23	105064.42	231.79	251.02	2800.71	9.67
	Total PWW	263	18764	30.35	9613.19			19.70	131576.36	243.06	262.76	2936.42	9.67
5	Irrigation & Agri												
a)	Low Tension - Irr & Agl	48	370.00	1.22	2,103.39	65	4.55	0.24	9570.42	4.63	4.87	55.80	4.57
b)	High Tension - Irr & Agl	21	370	1.00	3968.25	105	5.15	0.39	20436.49	4.29	4.68	51.87	5.19
	Total Irr. & Agl LT	69	740	2.22	2668.22			0.63	30006.91	8.92	9.55	107.67	4.85
6	Industrial												
a)	LT - Small/Micro	2402	20380	20.97	727.34	70	5.60	14.27	4073.10	97.85	112.12	1188.47	5.67
b)	HT - Medium Indst	125	4623	4.77	3174.26	105	8.00	4.85	25394.08	31.78	36.63	386.21	8.10
c)	HT - Large Indst	50	12988	10.21	16873.22	105	9.10	13.64	153546.30	77.41	91.05	942.56	9.23
	Total Industrial	2578	37991	35.94	1161.90			32.76	183013.48	207.04	239.80	2517.24	7.00
7	Bulk Supply HT	426	49387	103.08	20179.23	105	9.25	51.86	186657.88	794.56	846.42	9586.58	9.30
	Grand Total	523231	979838	884.00								55725.50	6.30

## ANNEXURE – IV

MSPDCL - FullCost Tariff (without Subsidy) based Revenue in FY 2023-24													
Sl. No.	Category	Consumers	Contracted Load (in kW)	Annual energy Sales (in MU)	Sales/ Consumer /Month (in kWh)	Subsidised Tariff		Revenue /month				Annual Revenue (in Rs lakh)	Average realisation (Rs/kWh)
						Fixed Charge (Rs/kW/ kVA)	Energy charge (Rs./kWh/ kVAh)	Total Fixed Charges (in Rs lac)	Energy charge/ Consr (in Rs.)	Total energy charge (in Rs lakh)	Total Revenue (in Rs lakhs)		
1	2	3	4	5	6	7	8	9	10	11	12=(9+11)	13=(12)*12	14
1	Domestic LT												
1)	Kutir Jyoti					per connection							
	All units	13942	6967	3.96		25	3.95	3.49	0.00	13.05	16.54	198.48	5.01
2)	Normal Domestic												
i)	0 - 100 kWh	418856	611141	499.96	99.47	65	6.35	397.24	0.00	2644.76	3042.00	36504.03	7.30
ii)	101 - 200 kWh	38997	88221	72.17	154.22	65	7.41	57.34	0.00	445.41	502.75	6033.05	8.36
iii)	Balance >200 kWh	16835	43109	35.27	174.57	65	8.40	28.02	0.00	246.91	274.93	3299.22	9.36
	Sub Total (2)	474689	742472	607.40	106.63	65		482.61	0.00	3337.09	3819.69	45836.30	7.55
	Total Domestic LT	488631	749439	611.36	104.26			486.10	0.00	3350.14	3836.24	46034.78	7.53
2	Non-Domestic/Commercial												
a)	Low Tension												
i)	0 - 100 kWh	17748	46583	35.01	164.40	85	7.51	39.60	0.00	219.25	258.85	3106.14	8.87
ii)	101 - 200 kWh	5641	10021	7.53	111.26	85	8.32	8.52	0.00	52.21	60.73	728.73	9.67
iii)	Balance >200 kWh	6198	38438	28.89	388.45	85	8.78	32.67	0.00	211.30	243.97	2927.59	10.13
	Commr- LT	29587	95042	71.43	201.20	85		80.79	0.00	482.75	563.54	6762.46	9.47
b)	Commercial HT	1172	27248	23.89	1698.82	105	7.40	31.79	13965.80	163.68	195.47	2345.63	9.82
	Commercial (LT&HT)	30759	122290	95.33	258.26			112.58	13965.8	646.43	759.01	9108.093	9.55
3	Public Lighting	505	1227	5.73	944.93	70	9.16	0.86	8659.74	43.74	44.60	535.20	9.35
4	Public Water Works												
a)	Low Tension - PWW	43	452	1.38	2705.30	105	9.23	0.47	24967.44	10.61	11.08	132.96	9.63
b)	High Tension - PWW	221	18312	28.97	10944.21	105	8.04	21.37	97788.19	215.74	237.11	2845.28	9.82
	Total PWW	263	18764	30.35	9613.19			21.84	122755.63	226.35	248.19	2978.24	9.81
5	Irrigation & Agri												
a)	Low Tension - Irr & Agl	48	370.00	1.22	2103.39	65	6.83	0.24	14367.78	6.94	7.18	86.16	7.06
b)	High Tension - Irr & Agl	21	370	1.00	3968.25	105	6.74	0.43	29716.36	6.24	6.67	80.08	8.01
	Total Irr. & Agl LT	69	740	2.22	2668.22			0.67	44084.14	13.18	13.85	166.24	7.49
6	Industrial												
a)	LT - Small/Micro	2402	20380	20.97	727.34	70	8.67	14.27	6307.19	151.52	165.79	1989.48	9.49
b)	HT - Medium Indst	125	4623	4.77	3174.26	105	7.61	5.39	26835.27	33.59	38.98	467.75	9.81
c)	HT - Large Indst	50	12988	10.21	16873.22	105	7.24	15.16	135750.77	68.44	83.60	1003.15	9.83
	Total Industrial	2578	37991	35.94	1161.90			34.81	168893.22	253.55	288.36	3460.37	9.63
7	Bulk Supply HT	426	49387	103.08	20179.23	105	8.24	57.62	184781.42	786.57	844.19	10130.31	9.83
	Grand Total	523231	979838	884.00								72413.23	8.19



## Annexure-V

Abstract of Full Cost Tariff, Subsidised Tariff and each Category-wise allocated subsidy for FY2023-24												
MSPDCL (FY 2023-24)		Energy	Full Cost Tariff (No subsidy)				Subsidised Retail Tariff				Govt. Subsidy	
		Annual Sales (MU)	Fixed Charge	Energy Charge	Annual Revenue (₹ Crs)	Avg. per unit (₹ /kWh)	Fixed Charge	Energy Charge	Annual Revenue (₹ Crs)	Avg. per unit (₹ /kWh)	Subsidy Amount (₹ Crs)	Avg. per unit (₹ /kWh)
1	KJ(Domestic)		Conc/kW	(₹ /kWh)			Conc/kW	(₹ /kWh)				
i)	First all kWh	3.96	25	3.95	1.98	5.01	25	2.10	0.87	2.19	1.12	2.82
2	Domestic		(₹ /CL/kW)	(₹ /kWh)			(₹ /CL/kW)	(₹ /kWh)				
i)	First 100 kWh	499.96	65	6.35	365.04	7.30	65	5.10	258.95	5.18	106.09	2.12
ii)	101 - 200 kWh	72.17	65	7.41	60.33	8.36	65	5.95	43.52	6.03	16.82	2.33
iii)	Above 200 kWh	35.27	65	8.40	32.99	9.35	65	6.75	24.08	6.83	8.91	2.53
	Domestic total	607.40			458.36	7.55			326.55	5.38	131.81	2.17
	Total Domestic	611.36			460.35	7.53			327.42	5.36		
3	Commercial & Non-Domestic		(₹ /CL/kW)	(₹ /kWh)			(₹ /CL/kW)	(₹ /kWh)				
i)	First 100 kWh	35.01	85	7.51	31.06	8.87	85	6.55	23.33	6.66	7.73	2.21
ii)	101 - 200 kWh	7.53	85	8.32	7.29	9.68	85	7.25	5.55	7.37	1.74	2.31
iii)	Above 200 kWh	28.89	85	8.78	29.28	10.13	85	7.65	22.43	7.76	6.85	2.37
	Sub Total	71.43			67.62	9.47			51.30	7.18	16.32	2.29
4	Commercial/ND HT	23.89	105	7.40	23.46	9.82	105	8.90	21.55	9.02	1.91	0.80
			(₹ /CL/kW)	(₹ /kWh)			(₹ /CL/kW)	(₹ /kWh)				
5	Public Lighting	5.73	70	9.16	5.35	9.35	70	9.60	5.51	9.61	-0.15	-0.27
6	Public Water Supply LT	1.38	105	9.23	1.33	9.63	105	9.80	1.36	9.83	-0.03	-0.20
7	Agriculture-LT	1.22	65	6.83	0.86	7.06	65	4.55	0.56	4.57	0.30	2.49
			(₹ /kVA/BD)	(₹ /kVAh)			(₹ /kVA/BD)	(₹ /kVAh)				
8	Public Water Supply HT	28.97	105	8.04	28.45	9.82	105	9.60	28.01	9.67	0.45	0.15
9	Irrigation-HT	1.00	105	6.74	0.80	8.01	105	5.15	0.52	5.19	0.28	2.82
10	Industrial		(₹ /CL/kW)	(₹ /kWh)			(₹ /CL/kW)	(₹ /kWh)				
i)	LT - Small/Micro	20.97	70	8.67	19.89	9.49	70	5.60	11.88	5.67	8.01	3.82
			(₹ /kVA/BD)	(₹ /kVAh)			(₹ /kVA/BD)	(₹ /kVAh)				
ii)	HT-Medium Industries	4.77	105	7.61	4.68	9.81	105	8.00	3.86	8.10	0.82	1.71
iii)	Large Industrial - HT	10.21	105	7.24	10.03	9.83	105	9.10	9.43	9.23	0.61	0.59
15	Bulk Supply HT	103.08	105	8.24	101.30	9.83	105	9.25	95.87	9.30	5.44	0.53
		884.00			724.13	8.19			557.25	6.30	166.88	1.89
	CL- denotes Contracted Load	BD- denotes Billing Demand										

Annexure-VI





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**JOINT ELECTRICITY REGULATORY COMMISSION**

**FOR MANIPUR AND MIZORAM**

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